
CANCER INCIDENCE AND MORTALITY IN BOSTON NEIGHBORHOODS

2003 – 2007



Bureau of Health Information, Statistics, Research, and Evaluation

Massachusetts Department of Public Health

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INTRODUCTION

The purpose of this report is to provide an overview of cancer incidence and mortality for each of the Boston neighborhoods for the five-year time period 2003 through 2007. For each neighborhood, Standardized Incidence Ratios (SIRs) and Standardized Mortality Ratios (SMRs) are presented for twenty-three types of cancer and for all invasive cancers combined. *(Note: While the MCR collects data on benign (non-cancerous) tumors of the central nervous system and in situ cancers (malignant cells which have not invaded the organ), this report does not present those data, with the exception of in situ bladder cancers, which are grouped with invasive bladder cancers for surveillance purposes.)* The SMRs and SIRs compare the cancer incidence and mortality experience of Boston neighborhoods with the cancer experience of the state as a whole. The method involves comparing the number of cases that were observed for a Boston neighborhood to the number of cases that would be expected if the neighborhood had the same cancer rates as the state as a whole. The format of this report follows that of the city and town report, which is produced annually. The population values for each neighborhood are from the 2000 US Census.

For each of the 15 neighborhoods, population data on racial/ethnic breakdown, poverty level, income, and language spoken are presented. These data were all compiled from the Boston Redevelopment Authority's report on comparative data on neighborhoods and Boston, using US Census 2000 summary file data. Additionally, cancers with significantly higher or lower incidence and mortality rates are summarized before the tables of SIRs and SMRs.

EXECUTIVE SUMMARY:

Compared with cancer rates for Massachusetts as a whole, all 15 Boston area neighborhoods had one or more statistically significantly lower or higher incidence/mortality of a specific cancer type. Many of these cancer findings mirror the racial/ethnic make-up of the neighborhood. For example, melanoma, a cancer with significantly elevated incidence rates in white, non-Hispanics (NH), was significantly elevated in neighborhoods with large white, NH populations such as Back Bay/Beacon Hill, Charlestown, the North/West End, South Boston, and West Roxbury. The incidence of melanoma was also elevated in Jamaica Plain, with about 50% of the population being white, NH. Nearly all of the cases, however, were among white NHs. People with lighter skin color are more susceptible to melanoma as a result of exposure to the sun and other ultraviolet radiation. Breast cancer and ovarian cancer incidence was statistically significantly elevated in some neighborhoods with large white NH populations. These cancers have statistically significantly elevated incidence rates among white, NH females as compared to the other major racial/ethnic groups in the state.¹ Prostate cancer, a cancer with statistically significantly higher incidence rates among black, NH males in the state¹, was statistically significantly elevated in Mattapan, Roxbury, and Hyde Park, areas with larger black populations. Mattapan and Hyde Park have large Haitian populations (15% and 10%, respectively). A report on cancer by race and ethnicity in Massachusetts found that Haitians had the highest incidence of prostate cancer among all the racial/ethnic groups in the state, higher even than the rate among black, NHs as a whole.¹ Multiple myeloma is another cancer with significantly elevated incidence rates among black NHs in Massachusetts.¹ The incidence for this cancer also was significantly elevated in Roxbury.

Neighborhoods may also have a higher incidence of certain cancers as a result of elevated behavioral risk factors in that neighborhood such as smoking rates (lung cancer, laryngeal cancer, oral cancer), alcohol abuse (liver cancer, esophageal cancer, oral cancer), or injection drug use (liver cancer). Additionally, some neighborhoods may have elevated rates of hepatitis B and C (liver cancer), HIV (non-Hodgkin lymphoma, multiple myeloma), *Helicobacter pylori* (stomach cancer) and human papillomavirus (cervical cancer, certain oral cancers). These risk factors may explain the elevated incidence in those areas; however, data on these factors were not available for examination in this study.

The incidence of thyroid and kidney cancers was elevated in several neighborhoods. These cancers have been increasing due in part to better screening and detection of smaller localized tumors and in the case of kidney cancer, obesity.^{2,3,4} Other cancers related to diet (colorectal cancer, stomach cancer) were elevated in some neighborhoods, possibly due in part to dietary patterns such as a diet high in red meats, salted foods, and low in fruits and vegetables.

There were other cancers such as leukemia, testicular cancer, and brain and central nervous system cancer without known behavioral or environmental risk factors that were elevated in some neighborhoods. These increases may be due to multiple comparison issues or other unknown factors.

Socioeconomic status such as income level and percent of people living below the poverty line may affect prompt access to treatment and hence survival. For example, mortality rates were significantly elevated for certain cancers such as breast, prostate, and stomach in Roxbury, one of the neighborhoods with the highest percentage of people living below the poverty level.¹

When reviewing the data tables, it is important to keep in mind that standard incidence (SIR) and mortality (SMR) ratios employed in this report compare the observed cancer incidence/mortality in a particular neighborhood with the expected incidence/mortality based on statewide average annual age-specific incidence/mortality rates. This means that *valid comparisons can only be made between a neighborhood and the state as a whole. SIRs or SMRs for different neighborhoods CANNOT and SHOULD NOT be compared to each other.* (Comparisons between two neighborhoods would be valid only if there were no differences in the age and sex distributions of the two neighborhoods' populations.)

It is beyond the scope of this report to provide detailed information on the cancers and their risk factors. For additional information, please refer to the following websites:

American Cancer Society (ACS): <http://www.cancer.org/index>

National Cancer Institute (NCI): <http://www.cancer.gov/>

METHODS

Data Sources and Coding

Massachusetts cancer incidence data are collected by the Massachusetts Cancer Registry (MCR). The MCR is a population-based cancer registry that was established by state law in 1980 and began collecting data in January 1982. Currently, the MCR collects information on *in situ* and invasive cancers and benign tumors of the brain and associated tissues. The MCR does not collect information on basal and squamous cell carcinomas of the skin.

Facilities reporting to the MCR in 2007 included 68 Massachusetts acute care hospitals, two medical practice associations, six laboratories, one radiation/oncology facility, one endoscopy center, dermatologists and dermatopathology laboratories, and urologists. Reports from dermatologists' offices and dermatopathology laboratories have only been collected by the MCR since 2001 and reports from urologists' offices since 2002.

The MCR also collects information from reporting hospitals on cases diagnosed and treated in staff physician offices when this information is available. Not all hospitals report this type of case, however, and some hospitals report such cases as if the patients had been diagnosed and treated by the hospital directly. Collecting this type of data makes the MCR's overall case ascertainment more complete. The cancer types most often reported to the MCR in this manner are prostate cancer and melanoma.

To improve case completeness, this MCR report includes previously unreported cancer cases that have been discovered through death certificate clearance. This process identifies cancers mentioned on death certificates that were not previously reported to the MCR. In some instances, the MCR was able to obtain additional information on these cases through follow-up activities with hospitals, nursing homes and physicians' offices. In other instances, a cancer-related cause of death recorded on a Massachusetts death certificate is the only source of information for a cancer case. These "death certificate only" cancer diagnoses are, therefore, poorly documented and have not been confirmed by review of complete clinical information. Such cases are included in this report, but they comprise less than 3% of all cancer cases for the years covered by this report.

Each year, the North American Association of Central Cancer Registries (NAACCR) reviews cancer registry data for quality, completeness, and timeliness. For diagnosis years 2003-2007, the MCR's annual case count was estimated by NAACCR to be more than 95% complete for each year. The MCR achieved the gold standard for this certification element, in addition to six other data quality and timeliness elements for each year during 2003-2007, which is the reporting period for this report.

Case reports were coded following the *International Classification of Diseases for Oncology*, Third Edition (ICD-O-3), which was implemented in North America with cases diagnosed as of January 1, 2001⁵. The codes used in this report are listed in Appendix A. ICD-O-3 implementation led to some changes in cancer site definitions from the second

edition (ICD-O-2). Specifically, the new edition (ICD-O-3) contains more specific information about certain cancers. The most important changes between the second and the third editions include:

- Certain hematopoietic diseases are now considered to be malignant, where previously they were classified as ‘uncertain whether benign or malignant.’
- Some neoplasms (mainly ovarian tumors) previously coded as malignant now revert to ‘uncertain whether benign or malignant.’

The Massachusetts incidence data summarized in this report were drawn from cancer cases entered on MCR computer files before February 28, 2010 and from death certificate clearance activities completed in October 2009. The numbers presented in this report may change slightly in future reports, reflecting late reported cases or corrections based on subsequent details from the reporting facilities. Such changes might result in slight differences in numbers and rates in future reports of MCR data, reflecting the nature of population-based cancer registries that receive case reports on an ongoing basis.

Massachusetts cancer cases presented in this report are primary cases of cancer diagnosed among Massachusetts residents during 2003-2007. The Massachusetts data presented include invasive cancers only (except cancer of the urinary bladder, where *in situ* cancers are also included). Invasive cancers have spread beyond the layer of cells where they started and have the potential to spread to other parts of the body. *In situ* cancers are neoplasms diagnosed at the earliest stage before they have spread, and they are limited to a small number of cells which have not invaded the organ itself. Typically, published incidence rates do not combine invasive and *in situ* cancers due to differences in the biologic significance, survival prognosis and types of treatment of the tumors. Cancer of the urinary bladder is the only exception due to the specific nature of the diagnostic techniques and treatment patterns.

The Massachusetts death data were obtained from the Massachusetts Registry of Vital Records and Statistics (MRVRS), which has legal responsibility for collecting reports of deaths in this state. The data come from the underlying cause of death field in death certificates which are reported to the MRVRS. Death reports from 2003 to 2007 were coded using the International Classification of Diseases, Tenth Revision (ICD-10)⁶. The cancer site/type groups for deaths in this report are presented in Appendix B.

Since the cancer incidence and mortality data presented in this report are derived from different sources, the classification of neighborhood by census tract for a case/death may differ. For the incidence data, the address at the time of diagnosis was used to determine Boston neighborhood by census tract. For mortality, the address at the time of death was used. The deaths due to cancer included in this report occurred during 2003-2007, and it is not known where the decedents lived when they were first diagnosed or when they were first diagnosed. For example a woman could have been diagnosed with breast cancer in 1995 in Roslindale and died in Charlestown in 2003. Mortality rates may be elevated in neighborhoods where there are more hospices or nursing homes. In both the incidence and the mortality files, people with addresses of nursing homes or homeless shelters were

excluded from the neighborhood analyses as it was not known whether they were residents of the neighborhood or from another area and temporarily residing in a nursing home or homeless shelter.

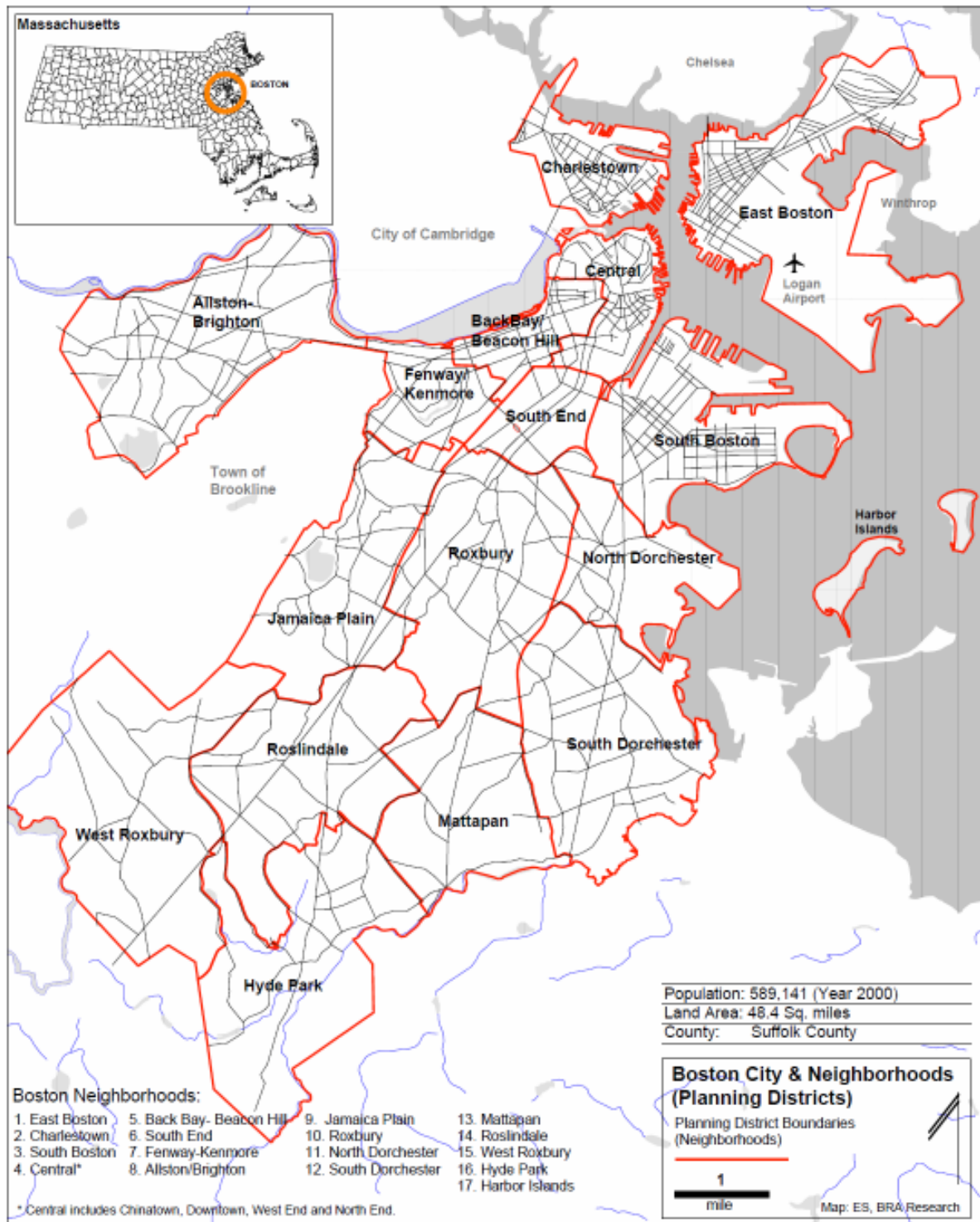
Boston Neighborhood Assignment:

Addresses of cancer cases/deaths were coded by census tract and grouped into neighborhoods based on data from the Boston Redevelopment Authority⁷. For cases (11.5 %) and deaths (14.9%) without a census tract, US Postal Service zip codes were used for neighborhood assignment. The following table summarizes the census tracts for each neighborhood.

Census Tracts	Neighborhood
1.02-8.02	Allston/Brighton
101.01-105.0	Fenway/Kenmore
106.00-202.00	Back Bay/Beacon Hill
203.00-305.00, 701.00-703.00	North End/West End (Central)
401.00-408.00	Charlestown
501.00-512.00	East Boston
601.00-612.00	South Boston
704.00-712.00, 805.00	South End
801.00-804.00, 806.00, 813.00-906.00, 924.00, 1203.00	Roxbury
808.00-812.00, 1201.01-1202.00, 1204.00-1207.00	Jamaica Plain
907.00-923.00, 1004.00-1008.00	Dorchester
1001.00-1003.00, 1009.00-1011.02	Mattapan
1101.00-1105.02, 1106.02	Roslindale
1106.01, 1301.00-1304.02	West Roxbury
1401.02-1404.00	Hyde Park

Zip Code	Neighborhood
02134, 02135	Allston/Brighton
02115	Fenway/Kenmore
02108, 02199, 02116, 02114	Back Bay/Beacon Hill
02109, 02110, 02113, 02111, 02210	North End/West End (Central)
02129	Charlestown
02128	East Boston
02127	South Boston
02118	South End
02119, 02120, 02121	Roxbury
02130	Jamaica Plain
02122, 02124, 02125	Dorchester
02126	Mattapan
02131	Roslindale
02132	West Roxbury
02136	Hyde Park

BOSTON CITY AND NEIGHBORHOODS (PLANNING DISTRICTS)



(From the Boston Redevelopment Authority 2000 census report)

DATA PRESENTATION:

Observed and Expected Case Counts

The *observed* case count (**Obs**) for a particular type of cancer in a city/town/neighborhood is the actual number of newly diagnosed cases among residents of that city/town/neighborhood for a given time period.

A city/town/neighborhood's *expected* case count (**Exp**) for a certain type of cancer for this time period is a calculated number based on that city/town/neighborhood's population distribution (by sex and among eighteen age groups) for the time period 2003-2007, and the corresponding statewide average annual age-specific incidence rates.

Standardized Incidence and Mortality Ratios

Standardized Incidence Ratios (SIRs) and Standardized Mortality Ratios (SMRs) are an indirect method of adjustment for age and sex that describes in numerical terms how a neighborhood's cancer experience (incidence and mortality) in a given time period compares with that of the state as a whole.

- An SIR of *exactly 100* indicates that a neighborhood's incidence of a certain type of cancer is *equal to that expected* based on statewide average age-specific incidence rates. An SMR of *exactly 100* indicates that a neighborhood's mortality due to a certain type of cancer is *equal to that expected* based on statewide average age-specific mortality rates.
- An SIR of *more than 100* indicates that a neighborhood's incidence of a certain type of cancer is *higher than expected* for that type of cancer based on statewide average annual age-specific incidence rates. For example, an SIR of 105 indicates that a neighborhood's cancer incidence is 5% higher than expected based on statewide average annual age-specific incidence rates. An SMR of *more than 100* indicates that a neighborhood's mortality due to a certain type of cancer is *higher than expected* for that type of cancer based on statewide average annual age-specific mortality rates. For example, an SMR of 105 indicates that a neighborhood's cancer mortality is 5% higher than expected based on statewide average annual age-specific mortality rates.
- An SIR of *less than 100* indicates that a neighborhood's incidence of a certain type of cancer is *lower than expected* based on statewide average age-specific incidence rates. For example, an SIR of 85 indicates that a city/town/neighborhood's cancer incidence is 15% lower than expected based on statewide average annual age-specific incidence rates. An SMR of *less than 100* indicates that a neighborhood's mortality due to a certain type of cancer is *lower than expected* based on statewide average age-specific mortality rates. For example, an SMR of 85 indicates that a city/town/neighborhood's cancer mortality is 15% lower than expected based on statewide average annual age-specific mortality rates.

Statistical Significance and Interpretation of SIRs and SMRs

The interpretation of the SIR or SMR depends on both how large it is and how stable it is. Stability in this context refers to how much the SIR or SMR changes when there are small increases or decreases in the observed or expected number of cases. Two SIRs may have the same size but not the same stability. For example, an SIR or SMR of 150 may represent 6 observed cases and 4 expected cases, or 600 observed cases and 400 expected cases. Both represent a 50 percent excess of observed cases. However, in the first instance, one or two fewer cases would change the SIR or SMR a great deal, whereas in the second instance, even if there were several fewer cases, the SIR or SMR would only change minimally. When the observed and expected numbers of cases are relatively small, their ratio is easily affected by one or two cases. Conversely, when the observed and expected numbers of cases are relatively large, the value of the SIR or SMR is stable.

A 95 percent confidence interval has been presented for each SIR or SMR in this report (when the observed number of cases is at least 5), to indicate if the observed number of cases is significantly different from the expected number, or if the difference is most likely due to chance.* In this report, the 95% confidence interval is the range of estimated SIR or SMR values that has a 95% probability of including the true SIR or SMR for a specific city or town. If the 95% confidence interval range *does not* include the value 100, then the number of observed cases is significantly different from the expected number of cases. ‘Significantly different’ means there is at most a 5% chance that the difference between the number of observed and expected cancer cases is due solely to chance alone. If the confidence interval does contain the value 100, there is no significant difference between the observed and expected numbers. Statistically, the width of the interval reflects the size of the population and the number of events; smaller populations and smaller observed numbers of cases yield less precise estimates that have wider confidence intervals. Wide confidence intervals indicate instability, meaning that small changes in the observed or expected number of cases would change the SIR or SMR a great deal.

Examples:

- SIR/SMR = 137.0; 95% CI (101.6 - 180.6) – the confidence interval does not include 100.0 and the interval is above 100.0, indicating that the number of observed cases is *statistically significantly higher* than the expected number.
- SIR/SMR = 71.0; 95% CI (56.2 – 88.4) – the confidence interval does not include 100.0 and the interval is below 100.0, indicating that the number of observed cases is *statistically significantly lower* than the expected number.
- SIR/SMR = 108.8 95% CI (71.0-159.4) – the confidence interval DOES include 100.0 indicating that the number of observed cases is *NOT statistically significantly different* from what is expected, and the difference is likely due to chance. When the interval includes 100.0, then the true SIR may be 100.0.

*The 95% confidence interval was calculated by first determining the standard error which was the SIR/SMR divided by the square root of the total number of cases/deaths. After this was calculated, the lower limit of the 95% confidence interval was obtained by subtracting 1.96, multiplied by the standard error, from the SIR/SMR. The upper limit was determined by adding the same figure. A confidence interval is a range of values around a measurement that indicates the precision of the measurement.

Example of Calculation of an SIR and Its Significance

$$\text{SIR} = \frac{\text{OBSERVED CASES}}{\text{EXPECTED CASES}} \times 100$$

The following example illustrates the method of calculation for a hypothetical town for one type of cancer and one sex for the years 2003-2007:

Age Group	<u>Town X</u> Population	<u>State</u> Age-Specific Incidence Rate	<u>Town X</u> Expected Cases	<u>Town X</u> Observed Cases
	(A)	(B)	(C) = (A) x (B)	(D)
00-04	74,657	0.0001	7.47	11
05-09	134,957	0.0002	26.99	25
10-14	54,463	0.0005	27.23	30
15-19	25,136	0.0015	37.70	40
20-24	17,012	0.0018	30.62	30
UP TO				
85+	6,337	0.0010	6.34	8
Total:			136.35	144

$$\text{SIR} = \frac{\text{Observed Cases}}{\text{Expected Cases}} \times 100 = \frac{(\text{column D total})}{(\text{column C total})} \times 100 = \frac{144}{136.35} \times 100 = 106$$

Thus the SIR for this type of cancer in Town X is 106, indicating that the incidence of this cancer in Town X is 6% higher than the corresponding statewide average incidence for this cancer. However, the range for the 95% confidence interval (89-124) indicates that the true value may be as low as 89 or as high as 124. Also, since the range includes the value 100, it means that the observed number of cases is *not statistically significantly higher or lower* than what is expected.

Whenever the number of observed cases is less than five, the corresponding SIR/SMR is neither calculated nor tested for statistical significance and only the observed number (<5) is shown.

Stage at Diagnosis.

In addition to the calculation of SIRs/SMRs for each neighborhood, the percentage of localized, regional, and distant stage at diagnosis data for female breast cancer, prostate cancer, and colorectal cancer by sex were compared to Massachusetts figures using a Chi Square test for statistical significance. Localized stage indicates that the cancer was found

in the body part (organ) where it began and it hasn't spread. Regional stage indicates that the cancer has spread beyond the original point where it started to the surrounding parts of the body (other tissues). The distant stage indicates that the cancer has spread to parts of the body far away from the original point where it began. This is the most difficult stage to treat since the cancer has spread though the body. The stage at diagnosis can be important in determining how to best treat the cancer and can be indicative of how early in the disease process a person is diagnosed. Please note that prostate cancer's staging combines localized and regional stages into one stage.² For this report, the major screenable cancers (female breast, colorectal, and prostate) were analyzed at the neighborhood level by stage at diagnosis. Cases with an unknown stage (on average 2-3% with a range of 0 to 14%, depending on cancer and neighborhood) were excluded from analysis.

Notes about Data Interpretation

The SIR/SMR is a useful indication of the disease categories that have relatively high or low rates for a given neighborhood. These statistics, however, should be used with care. Such statistics provide a starting point for further research and investigation into a possible health problem, but they do not by themselves confirm or deny the existence of a particular health problem. Many factors unrelated to disease causation may contribute to an elevated SIR/SMR including demographic factors, changes in diagnostic techniques, and changes in data collection or recording methods over time, as well as the natural variation in disease occurrence.

When reviewing the data tables, it is important to keep in mind that an SIR/SMR compares the observed cancer incidence/mortality in a particular neighborhood with the expected incidence/mortality based on statewide average annual age-specific incidence/mortality rates. This means that *valid comparisons can only be made between a neighborhood and the state as a whole. SIRs or SMRs for different neighborhoods CANNOT and SHOULD NOT be compared to each other.* (Comparisons between two neighborhoods would be valid only if there were no differences in the age and sex distributions of the two neighborhoods' populations.)

Data Limitations

It should be emphasized that apparent increases or decreases in cancer incidence over time might reflect changes in diagnostic methods or case reporting rather than true changes in cancer incidence. Other limitations must be considered when interpreting cancer incidence data for Boston neighborhoods including under-reporting for cancers that may not be diagnosed in hospitals; cases being reported with legitimate but incorrect addresses; standardized incidence or mortality ratios based on small numbers of cases; lack of adjustment for known risk factors; and multiple data comparisons. Additionally, there may be some situations where cause of death was misclassified. Examples of cancer deaths such as lung, liver, and brain may have been coded as the primary site when in reality it was a metastatic site. Also, the underlying cause of death is used for these analyses. There may be situations where a cancer was a significant contributor to the underlying cause of

death which was not cancer. For more detailed information of how cause of death is determined, please refer to the ‘Massachusetts Deaths 2008’ report at the DPH website:

http://www.mass.gov/Eeohhs2/docs/dph/research_epi/death_report_08.pdf

Cases Diagnosed in Non-Hospital Settings

During the time period covered by this report (2003-2007), hospitals provided most of the information about cancer cases to the MCR. Dermatologists’ offices began reporting in 2001, and urologists’ offices in 2002. Some types of cancer in this report are undoubtedly under-reported because they may be diagnosed by private physicians, private laboratories, health maintenance organizations, or radiotherapy centers that escape hospital case identification systems. Examples may include melanoma of the skin, prostate cancer, and certain hematologic malignancies such as leukemia and multiple myeloma. The extent of this under-reporting has not been determined exactly. However, the North American Association of Central Cancer Registries has estimated that overall the MCR’s records are more than 95% complete for the period 2003-2007.

Small Numbers of Cases

Standardized incidence ratios based on small numbers of cases result in estimates that are very unstable. This situation is common when the population of a city or town is small or if the particular cancer type is rare. SIRs and statistical significance are not calculated when the number of observed cases for a specific category is less than five. In these instances, the observed cases are presented in the tables as less than five.

Lack of Adjustment for Race/Ethnicity and Other Risk Factors

Data presented in this report were not adjusted for neighborhood differences in race/ethnicity or for other known risk factors such as smoking, alcohol use, diet, medical access, or other factors that impact the incidence and mortality of the various cancers. Significant cancer elevations in a neighborhood may be a reflection of the racial/ethnic make-up of the location, which are included in this report. For example, the significantly higher liver cancer incidence and mortality in Allston/Brighton or the North/West End maybe partly explained by the higher Asian population in these neighborhoods compared with the state. The elevated risk of liver cancer in Asians, especially East Asians, is due to chronic hepatitis B infection which occurred as a result of maternal transmission at birth.¹ Also, elevated prostate cancer incidence in neighborhoods with large black, non-Hispanic populations are a reflection of the significantly elevated incidence rates in that racial/ethnic group.¹

Multiple Data Comparisons Issue

There are SIR and SMR analyses on 21 cancers for females and 19 for males for 15 neighborhoods. There is a concept in epidemiology known as multiple comparisons in which the larger the number of statistical comparisons one makes, the greater the probability of significant findings which are not truly significant. For the cancers which were significantly elevated or lowered in this report, there exists a 5% probability that the finding is due to chance alone. What this means is that when reading the results of this report, the reader needs to understand that a small number of the significant findings may be due to statistical chance.⁸

ALLSTON AND BRIGHTON

	Massachusetts	Allston/Brighton
<u>Race/Ethnicity:</u>		
White, NH	80%	69%
Black, NH	6%	4%
Asian, NH	5%	14%
Hispanic	8%	9%
Other/Multiracial	1%	4%
<u>Language Spoken at Home:</u>		
English	81%	65%
Spanish	6%	8%
Portuguese	3%	3%
French (including Haitian Creole)	2%	2%
Chinese	1%	7%
Italian	1%	<1%
Russian	<1%	5%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$38,941
Percent Living Below Poverty	9%	23%

(Figures are based on 2000 US Census data.)

According to the 2000 US Census, Allston/Brighton had a population of 69,648 or 11.8% of the total Boston population.

Among females in Allston/Brighton, non-Hodgkin lymphoma and stomach cancer had a significantly elevated incidence compared to the state as a whole. In contrast, the incidence of all invasive cancers combined and lung cancer was significantly lower. Mortality due to stomach cancer was significantly elevated compared to the state while mortality due to all invasive cancers and breast cancer was significantly lower. There were no significant differences in stage at diagnosis for either breast or colorectal cancer among females (Appendix C).

Among males in Allston/Brighton, the incidence of Hodgkin lymphoma, liver and thyroid cancers were significantly elevated compared to the state as a whole. Mortality from liver and stomach cancers also was significantly elevated. There were no significant differences in stage at diagnosis for either prostate cancer or colorectal cancer among males (Appendix C).

Cancer Incidence in Allston/Brighton, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	579	656.7	88.1	81.0	95.3
Brain/Other Nervous System	6	2.7	224.6	44.9	404.2
Breast, Invasive	153	169.5	90.3	76.0	104.6
Bronchus & Lung	65	86.6	75.0	56.8	93.3
Cervix Uteri	8	5.0	159.8	49.1	270.6
Colon/Rectum	56	68.6	81.6	60.2	103.0
Corpus Uteri/Uterine NOS	41	35.7	114.8	79.6	149.9
Esophagus	5	2.1	242.8	30.0	455.7
Hodgkin Lymphoma	6	4.7	128.4	25.7	231.2
Kidney & Renal Pelvis	16	11.1	144.1	73.5	214.7
Larynx	<5				
Leukemia	16	10.5	152.3	77.7	226.9
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	21	18.9	111.4	63.7	159.0
Multiple Myeloma	5	3.5	143.5	17.7	269.3
Non-Hodgkin Lymphoma	30	16.5	182.3	117.1	247.5
Oral Cavity/Pharynx	7	4.6	152.3	39.5	265.1
Ovary	8	10.9	73.2	22.5	124.0
Pancreas	21	13.0	161.3	92.3	230.3
Stomach	15	7.0	213.9	105.7	322.2
Thyroid	38	31.9	119.2	81.3	157.1
Urinary Bladder*	18	17.0	106.0	57.0	155.0
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	562	593.5	94.7	86.8	102.5
Brain/Other Nervous System	7	4.8	146.9	38.1	255.7
Bronchus & Lung	82	79.2	103.6	81.1	126.0
Colon/Rectum	59	58.7	100.5	74.8	126.1
Esophagus	11	8.4	131.7	53.9	209.6
Hodgkin Lymphoma	10	2.1	465.9	177.1	754.6
Kidney & Renal Pelvis	27	17.0	158.5	98.7	218.4
Larynx	6	4.3	138.7	27.7	249.7
Leukemia	11	9.2	120.1	49.1	191.0
Liver/Intrahepatic Bile Ducts	18	7.4	244.2	131.4	357.1
Melanoma of Skin	22	21.9	100.3	58.4	142.2
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	18	22.3	80.8	43.5	118.1
Oral Cavity/Pharynx	10	11.0	90.9	34.5	147.2
Pancreas	8	5.1	157.9	48.5	267.3
Prostate	147	153.9	95.5	80.0	110.9
Stomach	14	7.8	179.0	85.2	272.7
Testes	15	12.9	116.2	57.4	175.0
Thyroid	12	4.2	288.2	125.1	451.3
Urinary Bladder*	40	40.5	98.6	68.1	129.2

Significantly elevated or lower values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Allston/Brighton, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	171	241.0	71.0	60.3	81.6
Brain/Other Nervous System	5	1.1	435.9	53.8	818.0
Breast, Invasive	21	31.7	66.3	37.9	94.7
Bronchus & Lung	51	63.7	80.1	58.1	102.1
Cervix Uteri	<5				
Colon/Rectum	19	23.6	80.6	44.4	116.9
Corpus Uteri/Uterine NOS	7	4.5	156.7	40.6	272.8
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	6	2.3	260.1	52.0	468.2
Larynx	<5				
Leukemia	5	5.4	92.7	11.4	173.9
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	<5				
Multiple Myeloma	5	3.4	148.6	18.3	278.8
Non-Hodgkin Lymphoma	12	6.8	177.3	77.0	277.6
Oral Cavity/Pharynx	<5				
Ovary	7	7.9	88.5	22.9	154.1
Pancreas	18	14.3	126.0	67.8	184.2
Stomach	14	4.3	328.7	156.5	500.9
Thyroid	<5				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	166	208.0	79.8	67.7	91.9
Brain/Other Nervous System	<5				
Bronchus & Lung	60	60.6	99.1	74.0	124.1
Colon/Rectum	16	17.4	91.9	46.9	137.0
Esophagus	9	5.5	164.7	57.1	272.3
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	10	6.9	145.7	55.4	236.1
Liver/Intrahepatic Bile Ducts	16	4.8	334.0	170.4	497.7
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	8	5.8	138.8	42.6	235.0
Oral Cavity/Pharynx	<5				
Pancreas	9	9.6	93.4	32.4	154.4
Prostate	18	19.3	93.1	50.1	136.1
Stomach	16	4.7	341.3	174.1	508.6
Testes	0				
Thyroid	0				
Urinary Bladder	7	5.2	134.3	34.8	233.8

Significantly elevated or lowered values are shaded.

BACK BAY/BEACON HILL

	Massachusetts	Back Bay/Beacon Hill
<u>Race/Ethnicity:</u>		
White, NH	80%	85%
Black, NH	6%	4%
Asian, NH	5%	6%
Hispanic	8%	4%
Other/Multiracial	1%	<1%
<u>Language Spoken at Home:</u>		
English	81%	83%
Spanish	6%	4%
Portuguese	3%	1%
French (including Haitian Creole)	2%	3%
Chinese	1%	2%
Italian	1%	<1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$66,428
Percent Living Below Poverty	9%	10.3%

(figures are based on 2000 US Census data)

According to the 2000 US Census, Back Bay/Beacon Hill had a population of 26,721 or 4.5% of the total Boston population.

The incidence of melanoma and ovarian cancer was significantly elevated among females in Back Bay/Beacon Hill as compared to the state. The mortality of all invasive cancers combined was significantly lower when compared with the state, however, there were no specific cancers with significantly elevated mortality. The stage at diagnosis for breast or colorectal cancers for females was not significantly different when compared with the state.

The following cancers had significantly elevated incidence among males in Back Bay/Beacon Hill as compared to the state: melanoma, oral/pharyngeal, and thyroid. The mortality of all invasive cancers combined in males was significantly lower when compared with the state. While the percentage of males diagnosed at the localized/regional stage of prostate cancer in Back Bay/Beacon Hill (92.2%) was significantly lower compared to the state (96.5%), there was no significant difference for colorectal cancer (Appendix C).

Cancer Incidence in Back Bay/Beacon Hill 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	233	217.2	107.3	93.5	121.1
Brain/Other Nervous System	<5				
Breast, Invasive	71	60.1	118.1	90.7	145.6
Bronchus & Lung	16	22.6	70.9	36.2	105.6
Cervix Uteri	0				
Colon/Rectum	22	16.0	137.4	80.0	194.9
Corpus Uteri/Uterine NOS	14	10.9	127.9	60.9	194.9
Esophagus	<5				
Hodgkin Lymphoma	5	1.4	349.4	43.1	655.7
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	5	1.8	274.5	33.9	515.0
Liver/Intrahepatic Bile Ducts	0				
Melanoma of Skin	24	8.4	283.2	169.9	396.5
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	7	3.5	201.2	52.1	350.3
Oral Cavity/Pharynx	6	1.4	432.6	86.4	778.8
Ovary	11	3.5	311.5	127.4	495.6
Pancreas	<5				
Stomach	<5				
Thyroid	18	11.6	155.2	83.5	227.0
Urinary Bladder*	5	1.6	317.7	39.2	596.2
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	270	261.4	103.3	91.0	115.6
Brain/Other Nervous System	<5				
Bronchus & Lung	24	33.5	71.6	43.0	100.3
Colon/Rectum	18	22.7	79.3	42.7	115.9
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	8	5.9	136.0	41.7	230.2
Larynx	<5				
Leukemia	6	2.5	241.6	48.3	434.9
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	29	11.3	255.6	162.6	348.6
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	16	8.9	178.9	91.2	266.5
Oral Cavity/Pharynx	12	4.7	252.8	109.8	395.8
Pancreas	<5				
Prostate	77	75.8	101.6	78.9	124.3
Stomach	0				
Testes	<5				
Thyroid	9	2.4	370.4	128.4	612.4
Urinary Bladder*	19	16.1	118.0	65.0	171.1

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Back Bay/Beacon Hill, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	34	65.6	51.8	34.4	69.2
Brain/Other Nervous System	<5				
Breast, Invasive	8	5.1	157.1	48.2	266.0
Bronchus & Lung	7	10.6	66.0	17.1	114.8
Cervix Uteri	0				
Colon/Rectum	5	2.8	181.0	22.3	339.6
Corpus Uteri/Uterine NOS	<5				
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	0				
Larynx	0				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	0				
Melanoma of Skin	<5				
Multiple Myeloma	0				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Ovary	<5				
Pancreas	7	2.5	276.1	71.6	480.7
Stomach	0				
Thyroid	<5				
Urinary Bladder	0				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	47	82.8	56.7	40.5	72.9
Brain/Other Nervous System	<5				
Bronchus & Lung	20	23.8	84.2	47.3	121.1
Colon/Rectum	8	3.5	227.4	69.8	385.0
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	5	1.1	441.9	54.6	829.3
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Pancreas	7	3.3	214.6	55.6	373.7
Prostate	8	4.7	168.9	51.8	285.9
Stomach	<5				
Testes	0				
Thyroid	0				
Urinary Bladder*	<5				

Significantly elevated or lowered values are shaded.

CHARLESTOWN

	Massachusetts	Charlestown
<u>Race/Ethnicity:</u>		
White, NH	80%	79%
Black, NH	6%	4%
Asian, NH	5%	5%
Hispanic	8%	12%
Other/Multiracial:	1%	0%
<u>Language Spoken at Home:</u>		
English	81%	84%
Spanish	6%	7%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	1%
Chinese	1%	3%
Italian	1%	<1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$56,111
Percent Living Below Poverty	9%	17.5%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, Charlestown had a population of 11,946 or 2.0% of the total Boston population.

Among Charlestown females, the incidence of melanoma was significantly elevated compared with the state. There were no cancers with elevated mortality. The stage at diagnosis for breast or colorectal cancers for females was not significantly different when compared with the state. (Appendix C).

For males in Charlestown, the incidence of melanoma was significantly elevated compared to the state and mortality for kidney cancer was also significantly elevated. The incidence of prostate cancer was significantly lower in Charlestown compared to the state, perhaps a reflection of the small black, NH population. The incidence of all invasive cancers combined was significantly lower as well. There were no significant differences in stage at diagnosis for prostate cancer or colorectal cancer among males (Appendix C).

Cancer Incidence in Charlestown, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	216	203.8	106.0	91.8	120.1
Brain/Other Nervous System	<5				
Breast, Invasive	57	57.3	99.5	73.6	125.3
Bronchus & Lung	37	26.6	139.0	94.2	183.8
Cervix Uteri	<5				
Colon/Rectum	25	18.7	133.7	81.3	186.2
Corpus Uteri/Uterine NOS	8	5.3	149.5	45.9	253.0
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	15	6.6	228.5	112.9	344.1
Multiple Myeloma	0				
Non-Hodgkin Lymphoma	9	4.3	207.2	71.8	342.5
Oral Cavity/Pharynx	<5				
Ovary	<5				
Pancreas	<5				
Stomach	5	1.3	393.2	48.5	737.9
Thyroid	15	7.8	193.4	95.5	291.3
Urinary Bladder*	5	2.1	236.7	29.2	444.1
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	159	213.2	74.6	63.0	86.2
Brain/Other Nervous System	<5				
Bronchus & Lung	29	27.4	105.7	67.3	144.2
Colon/Rectum	14	11.9	117.2	55.8	178.5
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	15	5.8	259.8	128.3	391.2
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	5	3.2	157.4	19.4	295.4
Oral Cavity/Pharynx	<5				
Pancreas	<5				
Prostate	39	58.2	67.0	46.0	88.0
Stomach	<5				
Testes	0				
Thyroid	<5				
Urinary Bladder*	8	6.9	115.1	35.3	194.9

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Charlestown, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	67	71.0	94.4	71.8	117.0
Brain/Other Nervous System	<5				
Breast, Invasive	14	7.5	187.8	89.4	286.2
Bronchus & Lung	24	18.3	131.1	78.7	183.6
Cervix Uteri	<5				
Colon/Rectum	8	6.5	122.4	37.6	207.3
Corpus Uteri/Uterine NOS	<5				
Esophagus	0				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	0				
Melanoma of Skin	<5				
Multiple Myeloma	0				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	0				
Ovary	5	1.6	317.4	39.2	595.6
Pancreas	<5				
Stomach	<5				
Thyroid	0				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	68	72.2	94.1	71.7	116.5
Brain/Other Nervous System	<5				
Bronchus & Lung	20	17.1	116.7	65.6	167.9
Colon/Rectum	5	2.0	247.5	30.6	464.3
Esophagus	6	1.7	349.9	69.9	629.9
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	6	0.7	913.5	182.5	1644.4
Larynx	<5				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	5	1.1	436.7	53.9	819.5
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Pancreas	<5				
Prostate	6	6.4	93.8	18.7	168.8
Stomach	0				
Testes	0				
Thyroid	0				
Urinary Bladder	<5				

Significantly elevated or lowered values are shaded.

DORCHESTER

	Massachusetts	Dorchester
<u>Race/Ethnicity:</u>		
White, NH	80%	32%
Black, NH	6%	36%
Asian, NH	5%	11%
Hispanic	8%	12%
Other/Multiracial:	1%	9%
<u>Language Spoken at Home:</u>		
English	81%	63%
Spanish	6%	11%
Portuguese	3%	6%
French (including Haitian Creole)	2%	7%
Chinese	1%	<1%
Italian	1%	<1%
Russian	<1%	<1%
Vietnamese	<1%	8%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$37,925
Percent Living Below Poverty	9%	19%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, Dorchester had a population of 92,115 or 15.6% of the total Boston population.

Among females, the incidence of all invasive cancers combined, breast, and uterine cancers was significantly lower, perhaps a reflection of the much smaller percentage of white, NHs compared to the state. While the mortality for esophageal cancer was significantly elevated compared to the state, the mortality for all invasive cancers, breast cancer, and stomach cancer was significantly lower. There were no significant differences in stage at diagnosis for breast cancer or colorectal cancer among females as compared to the state (Appendix C).

Among males, the incidence of all invasive cancer and the following cancers lung, liver, and myeloma were significantly elevated in Dorchester compared to the state as was mortality from liver cancer. The incidence of melanoma and mortality for all cancers combined were significantly lower compared to the state. There were no significant differences in stage at diagnosis for prostate or colorectal cancers among Dorchester males as compared to the state (Appendix C).

Cancer Incidence in Dorchester, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	911	1078.1	84.5	79.0	90.0
Brain/Other Nervous System	8	7.2	111.5	34.2	188.7
Breast, Invasive	203	313.6	64.7	55.8	73.6
Bronchus & Lung	133	143.2	92.9	77.1	108.6
Cervix Uteri	22	12.9	171.4	99.8	243.0
Colon/Rectum	120	102.9	116.5	95.7	137.4
Corpus Uteri/Uterine NOS	54	68.8	78.5	57.5	99.4
Esophagus	8	2.8	280.0	86.0	474.1
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	22	22.8	96.5	56.2	136.9
Larynx	7	2.6	264.6	68.6	460.6
Leukemia	19	15.7	120.5	66.3	174.7
Liver/Intrahepatic Bile Ducts	9	3.9	230.5	79.9	381.1
Melanoma of Skin	17	25.0	67.9	35.6	100.1
Multiple Myeloma	10	7.7	128.8	49.0	208.7
Non-Hodgkin Lymphoma	37	37.1	99.8	67.6	131.9
Oral Cavity/Pharynx	15	10.1	148.0	73.1	222.9
Ovary	26	27.2	95.4	58.7	132.1
Pancreas	23	23.6	97.4	57.6	137.1
Stomach	13	9.0	144.2	65.8	222.6
Thyroid	58	49.4	117.2	87.1	147.4
Urinary Bladder*	19	26.5	71.6	39.4	103.9
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	937	930.3	100.7	94.3	107.2
Brain/Other Nervous System	11	6.5	170.2	69.6	270.8
Bronchus & Lung	155	122.9	126.1	106.3	146.0
Colon/Rectum	86	92.9	92.6	73.0	112.2
Esophagus	16	15.6	102.8	52.4	153.2
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	34	31.7	107.3	71.2	143.4
Larynx	14	8.1	172.1	81.9	262.2
Leukemia	20	18.8	106.5	59.8	153.2
Liver/Intrahepatic Bile Ducts	39	15.8	246.5	169.2	323.9
Melanoma of Skin	24	36.0	66.6	40.0	93.3
Multiple Myeloma	16	8.1	197.9	100.9	294.9
Non-Hodgkin Lymphoma	34	35.3	96.2	63.9	128.6
Oral Cavity/Pharynx	28	25.4	110.4	69.5	151.3
Pancreas	21	18.5	113.6	65.0	162.2
Prostate	268	259.9	103.1	90.8	115.5
Stomach	24	13.6	176.2	105.7	246.7
Testes	10	12.6	79.2	30.1	128.3
Thyroid	7	6.6	105.7	27.4	184.1
Urinary Bladder*	46	61.2	75.2	53.5	96.9

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Dorchester, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	305	362.5	84.1	74.7	93.6
Brain/Other Nervous System	0				
Breast, Invasive	38	54.5	69.7	47.5	91.9
Bronchus & Lung	92	97.3	94.5	75.2	113.9
Cervix Uteri	<5				
Colon/Rectum	36	34.4	104.5	70.4	138.7
Corpus Uteri/Uterine NOS	8	7.8	102.8	31.6	174.0
Esophagus	7	1.4	482.4	125.0	839.7
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	5	2.1	240.3	29.7	450.9
Larynx	<5				
Leukemia	7	6.7	104.2	27.0	181.3
Liver/Intrahepatic Bile Ducts	10	4.4	228.7	87.0	370.5
Melanoma of Skin	6	1.8	323.6	64.7	582.5
Multiple Myeloma	6	4.6	130.3	26.0	234.5
Non-Hodgkin Lymphoma	12	8.9	134.5	58.4	210.6
Oral Cavity/Pharynx	0				
Ovary	16	12.0	133.6	68.1	199.0
Pancreas	22	21.2	103.7	60.4	147.1
Stomach	10	3.6	274.3	104.3	444.3
Thyroid	<5				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	271	314.1	86.3	76.0	96.6
Brain/Other Nervous System	5	3.0	164.4	20.3	308.4
Bronchus & Lung	109	92.8	117.5	95.4	139.6
Colon/Rectum	17	24.1	70.7	37.1	104.3
Esophagus	16	11.9	133.9	68.3	199.5
Hodgkin Lymphoma	<1				
Kidney & Renal Pelvis	<5				
Larynx	6	1.9	322.6	64.5	580.7
Leukemia	8	4.7	170.0	52.2	287.9
Liver/Intrahepatic Bile Ducts	24	11.9	202.3	121.3	283.2
Melanoma of Skin	<5				
Multiple Myeloma	9	4.4	204.3	70.8	337.7
Non-Hodgkin Lymphoma	11	9.4	116.9	47.8	186.0
Oral Cavity/Pharynx	5	2.1	232.3	28.7	436.0
Pancreas	10	8.4	119.2	45.3	193.1
Prostate	32	23.8	134.4	87.8	181.0
Stomach	11	5.0	221.4	90.6	352.3
Testes	<5				
Thyroid	0				
Urinary Bladder	5	7.2	69.4	8.6	130.2

Significantly elevated or lowered values are shaded.

EAST BOSTON

	Massachusetts	East Boston
<u>Race/Ethnicity:</u>		
White, NH	80%	50%
Black, NH	6%	3%
Asian, NH	5%	4%
Hispanic	8%	39%
Other/Multiracial:	1%	4%
<u>Language Spoken at Home:</u>		
English	81%	46%
Spanish	6%	35%
Portuguese	3%	5%
French (including Haitian Creole)	2%	<1%
Chinese	1%	<1%
Italian	1%	7%
Russian	<1%	<1%
Vietnamese	<1%	2%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$31,311
Percent Living Below Poverty	9%	19.5%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, East Boston had a population of 38,413 or 6.5% of the total Boston population.

Among females, the incidence of brain, thyroid, and cervical cancers was significantly elevated in East Boston compared to the state. The incidence of breast cancer was significantly lower, perhaps a reflection of the smaller percentage of white, NHs compared to the state. Stomach cancer mortality also was significantly higher compared with state females. There were no significant differences in stage at diagnosis for breast or colorectal cancers among East Boston females (Appendix C).

Among males, the incidence of non-Hodgkin lymphoma was significantly elevated in East Boston compared to the state. The incidence of all invasive cancers combined, colorectal, and prostate cancers was significantly lower compared to the state. The lower prostate incidence may be a reflection of the very small percentage of black, NHs (3%) in this neighborhood. There were no cancers with elevated mortality. The stage at diagnosis for prostate cancer or colorectal cancer among East Boston males did not differ from state males (Appendix C).

Cancer Incidence in East Boston, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	447	459.4	97.3	88.3	106.3
Brain/Other Nervous System	11	2.7	411.8	168.5	655.2
Breast, Invasive	99	125.1	79.2	63.6	94.7
Bronchus & Lung	73	67.3	108.5	83.6	133.4
Cervix Uteri	10	2.6	389.4	148.0	630.7
Colon/Rectum	42	48.4	86.7	60.5	113.0
Corpus Uteri/Uterine NOS	30	26.5	113.0	72.6	153.5
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	10	7.4	135.3	51.4	219.1
Larynx	<5				
Leukemia	14	7.6	186.1	88.6	283.7
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	11	11.2	98.5	40.3	156.7
Multiple Myeloma	7	3.4	204.8	53.1	356.5
Non-Hodgkin Lymphoma	13	9.4	138.4	63.2	213.7
Oral Cavity/Pharynx	7	3.0	235.1	60.9	409.3
Ovary	11	6.2	177.9	72.8	283.1
Pancreas	12	9.6	124.6	54.1	195.2
Stomach	8	3.7	214.9	66.0	363.8
Thyroid	23	12.9	178.8	105.7	251.9
Urinary Bladder*	13	9.0	144.7	66.0	223.4
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	374	437.2	85.5	76.9	94.2
Brain/Other Nervous System	<5				
Bronchus & Lung	65	59.8	108.7	82.3	135.1
Colon/Rectum	31	42.6	72.8	47.2	98.5
Esophagus	6	3.8	157.4	31.5	283.4
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	17	12.9	132.1	69.3	194.9
Larynx	6	3.0	202.4	40.4	364.4
Leukemia	10	5.3	187.4	71.2	303.5
Liver/Intrahepatic Bile Ducts	13	6.8	192.4	87.8	296.9
Melanoma of Skin	8	10.8	74.1	22.8	125.5
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	32	16.1	199.2	130.2	268.2
Oral Cavity/Pharynx	13	8.6	150.5	68.7	232.3
Pancreas	6	4.7	127.6	25.5	229.7
Prostate	78	116.9	66.7	51.9	81.5
Stomach	13	6.9	188.3	86.0	290.7
Testes	<5				
Thyroid	<5				
Urinary Bladder*	30	29.4	102.2	65.6	138.7

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in East Boston, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	165	175.1	94.2	79.9	108.6
Brain/Other Nervous System	<5				
Breast, Invasive	27	22.4	120.3	74.9	165.7
Bronchus & Lung	47	47.4	99.1	70.8	127.4
Cervix Uteri	<5				
Colon/Rectum	17	15.7	108.5	56.9	231.7
Corpus Uteri/Uterine NOS	5	2.4	203.7	25.1	382.3
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	5	1.5	323.7	40.0	607.5
Larynx	<5				
Leukemia	10	5.0	199.8	76.0	323.6
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	10	6.3	157.8	60.0	255.6
Oral Cavity/Pharynx	0				
Ovary	9	5.7	157.7	54.7	260.8
Pancreas	11	7.5	145.7	59.6	231.7
Stomach	8	2.0	403.1	123.8	682.5
Thyroid	<5				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	144	161.5	89.2	74.6	103.7
Brain/Other Nervous System	<5				
Bronchus & Lung	51	45.3	112.6	81.7	143.4
Colon/Rectum	16	13.6	117.4	59.9	174.9
Esophagus	7	3.8	181.7	47.1	316.2
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	6	3.7	159.8	31.9	287.7
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	7	2.7	258.8	67.1	450.6
Oral Cavity/Pharynx	7	2.1	339.1	87.9	590.2
Pancreas	9	5.7	157.7	54.7	260.7
Prostate	17	16.1	105.8	55.5	156.0
Stomach	8	3.0	262.7	80.6	444.7
Testes	0				
Thyroid	0				
Urinary Bladder	6	3.7	163.1	32.6	293.7

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

FENWAY/KENMORE

	Massachusetts:	Fenway/Kenmore:
<u>Race/Ethnicity:</u>		
White, NH	80%	69%
Black, NH	6%	6%
Asian, NH	5%	14%
Hispanic	8%	7%
Other/Multiracial:	1%	4%
<u>Language Spoken at Home:</u>		
English	81%	73%
Spanish	6%	7%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	2%
Chinese	1%	<1%
Italian	1%	<1%
Russian	<1%	2%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$25,201
Percent Living Below Poverty	9%	37.3%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, Fenway/Kenmore had a population of 35,602 or 6.0% of the total Boston population.

The incidence of kidney cancer was significantly elevated among Fenway/Kenmore females compared with state females. There were no cancers with elevated mortality nor were there significant differences in stage at diagnosis for breast cancer or colorectal cancer among these females as compared to the state (Appendix C).

Among males, liver cancer and non-Hodgkin lymphoma had a significantly elevated incidence in Fenway/Kenmore compared to the state, while lung cancer had a significantly lower incidence. There were no specific cancers with elevated mortality compared to the state, but the mortality for all invasive cancers combined was significantly lower. While the percentage of males diagnosed at the localized/regional stage of prostate cancer in Fenway/Kenmore (90.4%) was significantly lower compared to state males (96.5%), there was no significant difference for colorectal cancer (Appendix C).

Cancer Incidence in Fenway/Kenmore, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	172	194.8	88.3	75.1	101.5
Brain/Other Nervous System	<5				
Breast, Invasive	41	44.1	93.0	64.5	121.5
Bronchus & Lung	16	21.0	76.2	38.8	113.5
Cervix Uteri	<5				
Colon/Rectum	27	18.2	148.6	92.5	204.7
Corpus Uteri/Uterine NOS	5	3.7	136.6	16.9	256.3
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	9	2.4	368.2	127.6	608.8
Larynx	0				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	8	6.6	121.6	37.3	205.8
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Ovary	<5				
Pancreas	<5				
Stomach	<5				
Thyroid	8	6.6	121.2	37.2	205.3
Urinary Bladder*	<5				
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	222	209.3	106.1	92.1	120.0
Brain/Other Nervous System	<5				
Bronchus & Lung	17	25.2	67.3	35.3	99.4
Colon/Rectum	25	18.2	136.9	83.2	190.5
Esophagus	6	1.7	349.7	69.9	629.5
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	7	3.7	187.4	48.6	326.2
Larynx	<5				
Leukemia	8	3.7	216.0	66.3	365.7
Liver/Intrahepatic Bile Ducts	11	1.4	771.5	315.6	1227.4
Melanoma of Skin	10	6.1	164.0	62.4	265.7
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	16	5.4	294.9	150.4	439.4
Oral Cavity/Pharynx	<5				
Pancreas	<5				
Prostate	54	48.2	112.0	82.1	141.9
Stomach	7	2.5	282.2	73.2	491.3
Testes	7	7.2	97.6	25.3	169.9
Thyroid	<5				
Urinary Bladder*	14	13.0	107.5	51.2	163.8

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Fenway/Kenmore, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	53	65.9	80.4	58.8	102.1
Brain/Other Nervous System	0				
Breast, Invasive	15	7.8	191.4	94.5	288.2
Bronchus & Lung	13	12.3	105.7	48.2	163.2
Cervix Uteri	0				
Colon/Rectum	5	3.9	129.2	16.0	242.4
Corpus Uteri/Uterine NOS	<5				
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	0				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	0				
Oral Cavity/Pharynx	<5				
Ovary	<5				
Pancreas	<5				
Stomach	<5				
Thyroid	0				
Urinary Bladder	0				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	55	70.4	78.1	57.5	98.7
Brain/Other Nervous System	<5				
Bronchus & Lung	12	18.6	64.6	28.1	101.2
Colon/Rectum	6	3.8	159.0	31.8	286.3
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	<5				
Multiple Myeloma	0				
Non-Hodgkin Lymphoma	6	1.6	378.0	75.5	680.4
Oral Cavity/Pharynx	0				
Pancreas	<5				
Prostate	<5				
Stomach	<5				
Testes	0				
Thyroid	0				
Urinary Bladder	0				

Significantly elevated or lowered values are shaded.

HYDE PARK

	Massachusetts	Hyde Park
<u>Race/Ethnicity:</u>		
White, NH	80%	43%
Black, NH	6%	39%
Asian, NH	5%	1%
Hispanic	8%	13%
Other/Multiracial:	1%	4%
<u>Language Spoken at Home:</u>		
English	81%	68%
Spanish	6%	11%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	14%
Chinese	1%	<1%
Italian	1%	1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$44,705
Percent Living Below Poverty	9%	10.4%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, Hyde Park had a population of 31,719 or 5.4% of the total Boston population.

Females residing in Hyde Park had significantly elevated incidence of cervical cancer and stomach cancer compared to the state. Deaths from breast, and colorectal cancers also were significantly elevated compared to the state. While the percentage of females diagnosed at the localized stage of colorectal cancer in Hyde Park (32.2%) was significantly lower than that for the state (42.5%), there was no significant difference for breast cancer (Appendix C).

Compared to the state, males in Hyde Park had significantly higher incidence for the following cancers: all sites combined, esophageal, Hodgkin lymphoma, myeloma and prostate. While there were no specific cancers with a significantly elevated mortality in Hyde Park compared to the state, the mortality for all sites combined was significantly lower. No significant differences in stage at diagnosis for prostate cancer or colorectal cancer among males were seen (Appendix C).

Cancer Incidence in Hyde Park, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	515	474.5	108.5	99.2	117.9
Brain/Other Nervous System	5	1.9	269.1	33.2	505.1
Breast, Invasive	149	133.5	111.6	93.7	129.6
Bronchus & Lung	73	63.9	114.2	88.0	140.3
Cervix Uteri	12	4.0	300.9	130.6	471.1
Colon/Rectum	61	48.5	125.7	94.2	157.3
Corpus Uteri/Uterine NOS	28	27.1	103.2	65.0	141.4
Esophagus	0				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	13	7.7	168.8	77.0	260.6
Larynx	<5				
Leukemia	7	4.1	171.4	44.4	298.4
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	16	13.1	122.1	62.2	181.9
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	18	16.2	111.3	59.9	162.7
Oral Cavity/Pharynx	5	1.7	288.4	35.6	541.2
Ovary	15	9.4	158.7	78.4	239.0
Pancreas	16	11.3	141.5	72.2	210.8
Stomach	10	3.5	288.3	109.6	467.0
Thyroid	28	17.3	161.3	101.6	221.0
Urinary Bladder*	16	13.0	123.2	62.8	183.6
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	474	414.1	114.5	104.2	124.8
Brain/Other Nervous System	5	2.2	223.2	27.5	418.8
Bronchus & Lung	70	57.3	122.1	93.5	150.7
Colon/Rectum	50	41.6	120.2	86.9	153.6
Esophagus	12	5.0	241.0	104.6	377.4
Hodgkin Lymphoma	5	0.5	1041.7	128.6	1954.8
Kidney & Renal Pelvis	15	13.1	114.2	56.4	172.0
Larynx	<5				
Leukemia	15	8.3	180.9	89.3	272.4
Liver/Intrahepatic Bile Ducts	10	3.9	259.2	98.5	419.8
Melanoma of Skin	11	12.4	88.9	36.4	141.5
Multiple Myeloma	9	2.4	371.2	128.7	613.8
Non-Hodgkin Lymphoma	18	13.5	133.0	71.5	194.4
Oral Cavity/Pharynx	11	5.7	193.4	79.1	307.7
Pancreas	11	7.1	154.3	63.1	245.5
Prostate	163	113.4	143.7	121.6	165.8
Stomach	9	4.1	216.3	75.0	357.6
Testes	<5				
Thyroid	7	2.6	270.8	70.2	471.3
Urinary Bladder*	19	23.6	80.5	44.3	116.6

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Hyde Park, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	160	175.3	91.3	77.1	105.4
Brain/Other Nervous System	<5				
Breast, Invasive	37	24.5	151.3	102.5	200.0
Bronchus & Lung	40	45.9	87.12	60.1	114.1
Cervix Uteri	<5				
Colon/Rectum	25	15.1	165.9	100.9	231.0
Corpus Uteri/Uterine NOS	7	3.8	182.9	47.4	318.3
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	0				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	0				
Ovary	7	5.5	127.1	33.0	221.3
Pancreas	14	9.4	149.0	70.9	227.0
Stomach	<5				
Thyroid	0				
Urinary Bladder	5	1.1	432.8	53.4	812.2
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	130	155.9	83.4	69.0	97.7
Brain/Other Nervous System	<5				
Bronchus & Lung	43	44.6	96.3	67.5	125.1
Colon/Rectum	15	12.0	124.4	61.5	187.4
Esophagus	6	3.8	157.4	31.5	283.4
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	8	3.0	268.7	82.5	454.9
Liver/Intrahepatic Bile Ducts	7	3.8	186.2	48.3	324.1
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Pancreas	10	8.0	124.9	47.5	202.3
Prostate	22	15.5	141.7	82.5	200.9
Stomach	6	3.1	190.4	38.0	342.8
Testes	0				
Thyroid	0				
Urinary Bladder	<5				

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

JAMAICA PLAIN

	Massachusetts	Jamaica Plain
<u>Race/Ethnicity:</u>		
White, NH	80%	50%
Black, NH	6%	17%
Asian, NH	5%	7%
Hispanic	8%	23%
Other/Multiracial:	1%	3%
<u>Language Spoken at Home:</u>		
English	81%	66%
Spanish	6%	18%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	2%
Chinese	1%	4%
Italian	1%	<1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$41,524
Percent Living Below Poverty	9%	20.9%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, Jamaica Plain had a population of 38,196 or 6.5% of the total Boston population.

Among Jamaica Plain females, cancer incidence was significantly higher than for state females for the following: all sites combined, brain, cervix, leukemia, liver, melanoma, oral cavity, and thyroid cancer. There were no significant differences in mortality. In addition, there were no significant differences in stage at diagnosis for breast cancer or colorectal cancer among these females (Appendix C).

Significantly elevated cancer incidence also was seen among Jamaica Plain males; these cancers included all sites combined, melanoma, non-Hodgkin lymphoma, and thyroid. Compared to the state, mortality from lung, colorectal, liver, melanoma, and prostate cancers was also significantly higher. There were no significant differences in stage at diagnosis for prostate or colorectal cancers among males as compared to the state (Appendix C).

Cancer Incidence in Jamaica Plain 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	435	366.5	118.7	107.5	129.8
Brain/Other Nervous System	9	2.4	378.9	131.4	626.5
Breast, Invasive	110	102.7	107.0	87.0	127.1
Bronchus & Lung	39	48.9	79.7	54.7	104.8
Cervix Uteri	11	3.1	358.3	146.6	570.1
Colon/Rectum	36	36.6	98.3	66.2	130.4
Corpus Uteri/Uterine NOS	27	22.4	120.5	75.0	165.9
Esophagus	<5				
Hodgkin Lymphoma	5	0.8	666.8	82.3	1251.2
Kidney & Renal Pelvis	12	5.3	225.8	98.0	353.5
Larynx	0				
Leukemia	13	4.4	292.4	133.5	451.4
Liver/Intrahepatic Bile Ducts	7	1.2	585.7	151.8	1019.6
Melanoma of Skin	21	11.8	178.6	102.2	255.0
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	14	9.3	149.9	71.4	228.4
Oral Cavity/Pharynx	7	1.5	472.8	122.5	823.0
Ovary	13	6.4	203.2	92.7	313.7
Pancreas	7	5.3	132.0	34.2	229.8
Stomach	8	2.8	281.2	86.3	476.1
Thyroid	38	16.3	232.6	158.6	306.5
Urinary Bladder*	12	9.8	122.7	53.3	192.1
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	374	311.7	120.0	107.8	132.2
Brain/Other Nervous System	<5				
Bronchus & Lung	54	41.1	131.3	96.3	166.3
Colon/Rectum	43	31.5	136.3	95.6	177.1
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	12	6.2	194.8	84.6	305.0
Larynx	<5				
Leukemia	10	4.6	215.2	81.8	348.6
Liver/Intrahepatic Bile Ducts	8	3.2	252.4	77.5	427.3
Melanoma of Skin	21	10.8	194.6	111.4	277.8
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	17	8.8	192.8	101.1	284.4
Oral Cavity/Pharynx	5	3.0	166.2	20.5	311.9
Pancreas	10	4.9	204.6	77.8	331.4
Prostate	100	84.4	118.4	95.2	141.6
Stomach	5	1.3	397.0	49.0	744.9
Testes	7	4.1	169.7	44.0	295.5
Thyroid	11	2.2	492.5	201.5	783.6
Urinary Bladder*	19	21.9	86.9	47.8	126.0

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Jamaica Plain, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	125	131.5	95.0	78.4	111.7
Brain/Other Nervous System	<5				
Breast, Invasive	22	17.3	127.0	73.9	180.0
Bronchus & Lung	27	33.0	81.8	50.9	112.6
Cervix Uteri	<5				
Colon/Rectum	14	10.1	138.5	66.0	211.1
Corpus Uteri/Uterine NOS	7	2.9	242.8	62.9	422.6
Esophagus	5	1.0	527.1	65.1	989.2
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	7	3.7	189.3	49.1	329.6
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	0				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	0				
Ovary	10	5.4	186.3	70.8	301.7
Pancreas	11	6.8	160.6	65.7	255.4
Stomach	<5				
Thyroid	0				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	123	109.1	112.8	92.8	132.7
Brain/Other Nervous System	<5				
Bronchus & Lung	53	31.6	167.8	122.6	212.9
Colon/Rectum	16	8.0	199.3	101.7	297.0
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	5	2.4	207.1	25.6	388.7
Liver/Intrahepatic Bile Ducts	8	2.1	377.4	115.9	639.0
Melanoma of Skin	6	1.1	542.9	108.5	977.3
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	6	2.5	238.4	47.7	429.2
Oral Cavity/Pharynx	<5				
Pancreas	5	2.5	197.1	24.3	369.8
Prostate	18	7.9	228.9	123.2	334.7
Stomach	<5				
Testes	0				
Thyroid	0				
Urinary Bladder	<5				

Significantly elevated or lowered values are shaded.

MATTAPAN

	Massachusetts	Mattapan
<u>Race/Ethnicity:</u>		
White, NH	80%	4%
Black, NH	6%	77%
Asian, NH	5%	1%
Hispanic	8%	13%
Other/Multiracial:	1%	5%
<u>Language Spoken at Home:</u>		
English	81%	72%
Spanish	6%	8%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	16%
Chinese	1%	<1%
Italian	1%	<1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$32,749
Percent Living Below Poverty	9%	22%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, Mattapan had a population of 37,486 or 6.4% of the total Boston population.

Among females, the incidence of myeloma was significantly elevated in Mattapan compared to the state. All invasive cancers combined had a significantly lower mortality. The percentage of localized stage at diagnosis of breast cancer was significantly lower in Mattapan (51.8%) compared to the state (67.6%). There was no significant difference in stage at diagnosis for colorectal cancer among females (Appendix C).

For males, the incidence of all cancers combined, laryngeal cancer, liver cancer, and prostate cancer was significantly elevated in Mattapan compared to the state, and mortality for liver cancer was also significantly elevated. The incidence of bladder cancer and mortality for all invasive cancers combined were significantly lower than the state. There were no significant differences in stage at diagnosis for prostate cancer or colorectal cancer among males (Appendix C).

Cancer Incidence in Mattapan, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	358	355.9	100.6	90.1	111.0
Brain/Other Nervous System	<5				
Breast, Invasive	113	99.9	113.0	92.2	133.9
Bronchus & Lung	41	47.9	85.6	59.4	111.9
Cervix Uteri	<5				
Colon/Rectum	41	36.9	111.1	77.1	145.1
Corpus Uteri/Uterine NOS	24	20.0	120.1	72.0	168.1
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	13	6.0	218.2	99.6	336.8
Larynx	<5				
Leukemia	5	3.2	156.2	19.3	293.1
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	<5				
Multiple Myeloma	6	1.1	530.3	106.0	954.7
Non-Hodgkin Lymphoma	9	8.1	110.7	38.4	183.1
Oral Cavity/Pharynx	<5				
Ovary	12	7.2	166.4	72.3	260.6
Pancreas	13	6.4	204.4	93.3	315.5
Stomach	<5				
Thyroid	23	13.9	165.8	98.0	233.5
Urinary Bladder*	6	2.4	252.3	50.4	454.2
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	398	342.9	116.1	104.7	127.5
Brain/Other Nervous System	<5				
Bronchus & Lung	44	46.7	94.2	66.4	122.1
Colon/Rectum	37	32.5	113.9	77.2	150.6
Esophagus	5	2.6	192.9	23.8	362.0
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	17	9.1	186.7	97.9	275.4
Larynx	11	3.3	337.8	138.2	537.5
Leukemia	6	1.9	320.4	64.0	576.7
Liver/Intrahepatic Bile Ducts	11	3.6	309.8	126.7	492.9
Melanoma of Skin	<5				
Multiple Myeloma	6	1.6	365.2	73.0	657.5
Non-Hodgkin Lymphoma	15	8.9	168.6	83.3	253.9
Oral Cavity/Pharynx	9	6.4	140.9	48.8	232.9
Pancreas	9	4.5	198.8	68.9	328.7
Prostate	171	94.1	181.8	154.5	209.0
Stomach	5	2.2	231.2	28.5	433.9
Testes	<5				
Thyroid	<5				
Urinary Bladder*	7	16.6	42.1	10.9	73.2

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Mattapan, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	109	132.6	82.2	66.8	97.7
Brain/Other Nervous System	0				
Breast, Invasive	21	16.2	129.6	74.1	185.0
Bronchus & Lung	25	33.0	75.8	46.1	105.5
Cervix Uteri	<5				
Colon/Rectum	19	13.8	137.6	75.8	199.5
Corpus Uteri/Uterine NOS	<5				
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	6	1.7	347.6	69.5	625.7
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	0				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	0				
Ovary	<5				
Pancreas	6	4.5	134.6	26.9	242.3
Stomach	<5				
Thyroid	<5				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	92	121.5	75.7	60.2	91.2
Brain/Other Nervous System	0				
Bronchus & Lung	23	30.8	74.7	44.1	105.2
Colon/Rectum	7	5.8	121.3	31.5	211.2
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	8	2.1	380.7	116.9	644.5
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	5	2.6	193.0	23.8	362.1
Oral Cavity/Pharynx	<5				
Pancreas	8	3.1	261.2	80.2	442.2
Prostate	14	11.3	123.5	58.8	188.2
Stomach	<5				
Testes	0				
Thyroid	0				
Urinary Bladder*	<5				

Significantly elevated or lowered values are shaded.

NORTH END/WEST END (CENTRAL DISTRICT)

	Massachusetts	North End/West End
<u>Race/Ethnicity:</u>		
White, NH	80%	70%
Black, NH	6%	4%
Asian, NH	5%	21%
Hispanic	8%	4%
Other/Multiracial:	1%	2%
<u>Language Spoken at Home:</u>		
English	81%	70%
Spanish	6%	3%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	1%
Chinese	1%	14%
Italian	1%	5%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$46,666
Percent Living Below Poverty	9%	17%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, the North End/West End (Central District) had a population of 25,173 or 4.2% of the total Boston population.

Among females, the incidence of the following cancers: all cancers combined, breast, Hodgkin lymphoma, liver, melanoma, pancreatic, and thyroid were significantly elevated in the Central District compared to the state. Mortality from liver cancer was also higher, while mortality from all cancers combined was significantly lower. There were no significant differences in stage at diagnosis for breast or colorectal cancers among these females (Appendix C). For males, all cancers combined, colorectal cancer, kidney cancer, leukemia, liver cancer, melanoma, non-Hodgkin lymphoma, prostate cancer, testicular cancer, and thyroid cancer had significantly elevated incidence compared to the state. Mortality from non-Hodgkin lymphoma was also significantly higher and that for all sites combined was significantly lower. There were no significant differences in stage at diagnosis for prostate cancer or colorectal cancer among males as compared to the state (Appendix C).

Note: The increased SIRs for several cancers in this district may be partly due to the varied neighborhoods within, such as the North End with a large Italian population and Chinatown with a large East Asian population, each with specific race/ethnicity related cancers. This is also the area where Massachusetts General Hospital is located. While cases reported to the MCR are based on residence at diagnosis and not on a temporary residence while being diagnosed and treated, it is possible that some of these cases were temporary residents of this neighborhood, thereby elevating the various cancer counts.

Cancer Incidence in the North/West End, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	439	327.2	134.2	121.6	146.7
Brain/Other Nervous System	<5				
Breast, Invasive	121	86.0	140.7	115.7	165.8
Bronchus & Lung	51	44.9	113.6	82.4	144.8
Cervix Uteri	6	1.5	395.8	79.1	712.6
Colon/Rectum	45	33.5	134.5	95.2	173.8
Corpus Uteri/Uterine NOS	27	18.3	147.6	91.9	203.3
Esophagus	<5				
Hodgkin Lymphoma	6	0.5	1167.0	233.2	2100.8
Kidney & Renal Pelvis	10	4.3	233.0	88.6	377.4
Larynx	0				
Leukemia	10	4.0	251.7	95.7	407.7
Liver/Intrahepatic Bile Ducts	8	1.4	588.0	180.5	995.4
Melanoma of Skin	35	11.4	307.3	205.5	409.1
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	16	8.6	185.7	94.7	276.4
Oral Cavity/Pharynx	5	1.8	271.5	33.5	509.5
Ovary	9	3.5	255.6	88.6	422.6
Pancreas	18	7.7	234.0	125.9	342.2
Stomach	<5				
Thyroid	24	13.1	183.3	109.9	256.6
Urinary Bladder*	8	6.8	117.6	36.1	199.2
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	450	333.6	134.9	122.4	147.3
Brain/Other Nervous System	<5				
Bronchus & Lung	56	43.5	128.6	94.9	162.3
Colon/Rectum	52	33.1	157.1	114.4	199.8
Esophagus	6	2.6	230.2	46.0	414.5
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	18	8.5	212.0	114.1	310.0
Larynx	<5				
Leukemia	15	5.7	260.7	128.8	392.6
Liver/Intrahepatic Bile Ducts	13	4.2	309.0	141.0	477.0
Melanoma of Skin	37	14.6	252.5	171.1	333.9
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	22	10.9	201.8	117.5	286.1
Oral Cavity/Pharynx	10	7.0	141.1	53.6	228.6
Pancreas	10	5.5	181.7	69.1	294.3
Prostate	116	93.0	124.8	102.1	147.5
Stomach	9	3.9	229.1	79.4	378.7
Testes	12	5.0	240.1	104.3	376.0
Thyroid	8	2.1	375.9	115.4	636.4
Urinary Bladder*	24	22.0	109.2	65.5	152.8

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in the North/West End, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	91	120.5	75.5	60.0	91.0
Brain/Other Nervous System	<5				
Breast, Invasive	15	14.8	101.6	50.2	153.0
Bronchus & Lung	29	30.6	94.6	60.2	129.1
Cervix Uteri	<5				
Colon/Rectum	9	10.9	82.5	28.6	136.4
Corpus Uteri/Uterine NOS	<5				
Esophagus	0				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	5	2.0	245.7	30.3	461.1
Liver/Intrahepatic Bile Ducts	6	0.8	762.4	152.4	1372.4
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	7	3.3	213.8	55.4	372.2
Oral Cavity/Pharynx	<5				
Ovary	6	3.9	154.0	30.8	277.1
Pancreas	11	7.0	157.2	64.3	250.2
Stomach	<5				
Thyroid	<5				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	91	113.6	80.1	63.7	96.6
Brain/Other Nervous System	<5				
Bronchus & Lung	32	29.0	110.5	72.2	148.8
Colon/Rectum	16	8.9	179.5	91.5	267.4
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	7	2.3	300.0	77.8	522.2
Liver/Intrahepatic Bile Ducts	8	2.6	311.8	95.7	527.9
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	10	3.2	311.2	118.3	504.1
Oral Cavity/Pharynx	<5				
Pancreas	8	5.6	143.4	44.0	242.8
Prostate	7	7.6	91.5	23.7	159.3
Stomach	7	2.5	278.5	72.2	484.8
Testes	0				
Thyroid	<5				
Urinary Bladder	<5				

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

ROSLINDALE

	Massachusetts	Roslindale
<u>Race/Ethnicity:</u>		
White, NH	80%	56%
Black, NH	6%	16%
Asian, NH	5%	4%
Hispanic	8%	20%
Other/Multiracial:	1%	3%
<u>Language Spoken at Home:</u>		
English	81%	63%
Spanish	6%	17%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	6%
Chinese	1%	<1%
Italian	1%	<1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$46,847
Percent Living Below Poverty	9%	14%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, Roslindale had a population of 34,618 or 5.9% of the total Boston population.

Among females, the incidence of colorectal, kidney, ovarian, and thyroid cancers all were significantly elevated in Roslindale compared to the state. All cancers and cancers of the breast, kidney, and pancreas had significantly higher mortality compared to the state. There were no significant differences in stage at diagnosis for breast cancer or colorectal cancer among females (Appendix C).

Compared with state males, males residing in Roslindale had significantly higher incidence of all cancers combined, bladder cancer, and prostate cancer. Mortality for all sites, lung cancer, colorectal cancer, esophageal cancer, melanoma, and prostate cancer was also significantly elevated. There were no significant differences in stage at diagnosis for prostate or colorectal cancers among males as compared to the state (Appendix C).

Cancer Incidence in Roslindale, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	438	395.4	110.8	100.4	121.1
Brain/Other Nervous System	<5				
Breast, Invasive	117	109.5	106.9	87.5	126.3
Bronchus & Lung	51	50.2	101.5	73.7	129.4
Cervix Uteri	<5				
Colon/Rectum	57	42.0	138.7	102.7	174.7
Corpus Uteri/Uterine NOS	22	22.0	99.8	58.1	141.5
Esophagus	0				
Hodgkin Lymphoma	5	0.7	667.7	82.4	1252.9
Kidney & Renal Pelvis	18	6.0	300.5	162.0	439.4
Larynx	<5				
Leukemia	7	3.7	190.9	49.5	332.4
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	15	13.4	111.5	55.1	167.9
Multiple Myeloma	7	2.6	266.5	69.1	463.9
Non-Hodgkin Lymphoma	16	12.6	126.5	64.5	188.5
Oral Cavity/Pharynx	7	2.4	288.3	74.7	501.9
Ovary	17	8.1	208.1	109.1	307.0
Pancreas	8	8.6	92.8	28.5	157.1
Stomach	8	3.0	264.9	81.3	448.5
Thyroid	33	16.6	197.9	130.4	265.5
Urinary Bladder*	14	9.4	148.6	70.8	226.5
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	359	302.1	118.8	106.5	131.1
Brain/Other Nervous System	<5				
Bronchus & Lung	49	38.7	126.7	91.2	162.2
Colon/Rectum	38	28.2	134.8	92.0	177.7
Esophagus	7	2.6	264.9	68.7	461.2
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	14	8.1	172.1	82.0	262.3
Larynx	<5				
Leukemia	9	3.9	232.6	80.6	384.6
Liver/Intrahepatic Bile Ducts	7	3.1	225.3	58.4	392.1
Melanoma of Skin	14	9.6	145.8	69.4	222.2
Multiple Myeloma	6	1.6	370.4	74.1	666.9
Non-Hodgkin Lymphoma	14	9.4	149.3	71.1	227.6
Oral Cavity/Pharynx	13	6.4	203.0	92.6	313.3
Pancreas	5	3.6	138.5	17.1	259.9
Prostate	100	79.1	126.4	101.6	151.2
Stomach	<5				
Testes	10	4.5	222.4	84.5	360.2
Thyroid	5	1.5	328.0	40.5	615.6
Urinary Bladder*	31	18.3	169.3	109.7	228.9

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Roslindale, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	195	154.6	126.1	108.4	143.8
Brain/Other Nervous System	<5				
Breast, Invasive	36	20.0	180.2	121.4	239.1
Bronchus & Lung	47	38.0	123.6	88.2	158.9
Cervix Uteri	<5				
Colon/Rectum	25	16.4	152.5	92.7	212.3
Corpus Uteri/Uterine NOS	7	2.3	307.1	79.6	534.5
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	7	1.6	438.2	113.6	762.7
Larynx	0				
Leukemia	8	3.2	252.6	77.6	427.6
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	5	0.8	627.8	77.5	1178.1
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	8	5.3	149.6	45.9	253.2
Oral Cavity/Pharynx	<5				
Ovary	12	5.5	217.2	94.3	340.1
Pancreas	19	8.5	223.9	123.2	324.5
Stomach	<5				
Thyroid	<5				
Urinary Bladder	6	2.0	292.8	58.5	527.0
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	152	110.3	137.9	115.9	159.8
Brain/Other Nervous System	<5				
Bronchus & Lung	47	29.4	159.6	114.0	205.2
Colon/Rectum	20	8.8	226.1	127.0	325.2
Esophagus	11	3.8	291.6	119.3	463.9
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	6	2.3	262.0	52.3	471.6
Liver/Intrahepatic Bile Ducts	7	2.3	301.0	78.0	524.0
Melanoma of Skin	6	1.1	558.8	111.7	1005.9
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Pancreas	7	4.1	171.5	44.4	298.6
Prostate	26	11.3	230.3	141.8	318.8
Stomach	<5				
Testes	0				
Thyroid	0				
Urinary Bladder	7	2.6	271.2	70.3	472.0

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

ROXBURY

	Massachusetts	Roxbury
Race/Ethnicity:		
White, NH	80%	5%
Black, NH	6%	63%
Asian, NH	5%	1%
Hispanic	8%	24%
Other/Multiracial	1%	7%
Language Spoken at Home:		
English	81%	66%
Spanish	6%	22%
Portuguese	3%	3%
French (including Haitian Creole)	2%	6%
Chinese	1%	<1%
Italian	1%	<1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
Economic Status:		
Median Household Income	\$50,502	\$27,133
Percent Living Below Poverty	9%	27%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, Roxbury had a population of 56,658 or 9.6% of the total Boston population.

Among females, all sites combined, melanoma, myeloma and thyroid cancer had significantly elevated incidence in Roxbury compared to the state. Mortality from breast, myeloma, and stomach cancers also was significantly higher. The percentage of localized stage diagnoses of breast cancer was significantly lower in Roxbury (54.5%) compared to the state (67.9%). There was no significant difference in stage at diagnosis for colorectal cancer among females (Appendix C).

Among males, the incidence of stomach, and prostate cancers was significantly elevated in Roxbury compared to the state while deaths for all cancer sites, leukemia, and cancers of the liver, prostate, and stomach were also elevated. The incidence for bladder cancer was significantly lower. The percentage of localized/regional stage at diagnosis of prostate cancer was significantly lower in Roxbury (91.1%) compared to the state (96.5%). There was no significant difference in stage at diagnosis for colorectal cancer among males.

Cancer Incidence in Roxbury, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	590	659.7	89.4	82.2	96.6
Brain/Other Nervous System	5	1.4	368.6	45.5	691.6
Breast, Invasive	168	189.5	88.7	75.2	102.1
Bronchus & Lung	82	85.7	95.7	75.0	116.4
Cervix Uteri	11	7.0	156.5	64.0	249.0
Colon/Rectum	53	62.5	84.9	62.0	107.7
Corpus Uteri/Uterine NOS	37	38.5	96.2	65.2	127.2
Esophagus	6	1.4	423.6	84.7	762.6
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	12	8.6	139.7	60.7	218.8
Larynx	<5				
Leukemia	16	10.8	147.7	75.3	220.1
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	6	11.2	53.4	10.7	96.1
Multiple Myeloma	16	4.9	329.6	168.1	491.1
Non-Hodgkin Lymphoma	10	15.0	66.5	25.3	107.6
Oral Cavity/Pharynx	4	3.4	116.2	2.3	230.1
Ovary	12	13.5	88.3	38.4	138.3
Pancreas	21	13.1	160.3	91.7	228.8
Stomach	11	5.6	196.8	80.5	313.1
Thyroid	53	31.7	167.2	122.2	212.2
Urinary Bladder*	<5				
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	629	585.5	107.4	99.0	115.8
Brain/Other Nervous System	8	3.9	204.3	62.7	345.9
Bronchus & Lung	89	78.1	113.7	90.2	137.3
Colon/Rectum	72	58.4	123.3	94.8	151.8
Esophagus	12	8.8	135.4	58.8	211.9
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	25	20.1	124.5	75.7	173.3
Larynx	6	2.9	204.4	40.8	367.9
Leukemia	13	11.2	115.9	52.9	178.9
Liver/Intrahepatic Bile Ducts	17	9.3	182.7	95.9	269.6
Melanoma of Skin	6	6.6	91.5	18.3	164.7
Multiple Myeloma	8	3.3	241.1	74.0	408.1
Non-Hodgkin Lymphoma	19	19.7	96.3	53.0	139.6
Oral Cavity/Pharynx	14	13.5	103.2	49.1	157.3
Pancreas	8	5.7	140.1	43.0	237.3
Prostate	235	163.4	143.8	125.4	162.2
Stomach	17	7.0	243.0	127.5	358.5
Testes	<5				
Thyroid	6	2.7	220.4	44.0	396.7
Urinary Bladder*	19	36.6	51.9	28.6	75.3

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in Roxbury, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	230	222.0	103.6	90.2	117.0
Brain/Other Nervous System	<5				
Breast, Invasive	51	29.0	175.9	127.6	224.2
Bronchus & Lung	53	60.7	87.3	63.8	110.8
Cervix Uteri	<5				
Colon/Rectum	19	18.5	102.8	56.6	149.0
Corpus Uteri/Uterine NOS	8	5.0	160.7	49.3	272.0
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	0				
Larynx	0				
Leukemia	11	4.5	241.8	98.9	384.7
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	0				
Multiple Myeloma	9	1.8	491.7	170.4	812.9
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Ovary	8	9.6	83.4	25.6	141.2
Pancreas	20	12.1	164.9	92.6	237.1
Stomach	8	2.0	409.2	125.6	692.7
Thyroid	<5				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	249	197.2	126.3	110.6	142.0
Brain/Other Nervous System	5	1.3	387.7	47.9	727.5
Bronchus & Lung	74	58.1	127.3	98.3	156.3
Colon/Rectum	28	17.9	156.5	98.5	214.4
Esophagus	10	7.5	132.7	50.4	214.9
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	15	6.6	227.2	112.2	342.2
Liver/Intrahepatic Bile Ducts	18	6.2	289.2	155.6	422.8
Melanoma of Skin	<5				
Multiple Myeloma	5	1.6	306.6	37.9	575.4
Non-Hodgkin Lymphoma	6	4.0	149.6	29.9	269.3
Oral Cavity/Pharynx	6	2.0	298.7	59.7	537.8
Pancreas	17	8.9	190.1	99.7	280.4
Prostate	30	16.1	186.7	119.9	253.5
Stomach	11	4.4	247.2	101.1	393.3
Testes	0				
Thyroid	<5				
Urinary Bladder	8	3.5	231.2	71.0	391.4

Significantly elevated or lowered values are shaded.

SOUTH BOSTON

	Massachusetts	South Boston
<u>Race/Ethnicity:</u>		
White, NH	80%	85%
Black, NH	6%	2%
Asian, NH	5%	4%
Hispanic	8%	7%
Other/Multiracial:	1%	1%
<u>Language Spoken at Home:</u>		
English	81%	85%
Spanish	6%	6%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	<1%
Chinese	1%	2%
Italian	1%	1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$40,312
Percent Living Below Poverty	9%	17%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, South Boston had a population of 29,965 or 5.1% of the total Boston population

Among females, cancers of the lung, cervix, larynx, colon/rectum, oral cavity, and melanoma all had significantly elevated incidence in South Boston compared to the state. Mortality from cervical cancer and melanoma also was significantly. The percentage of localized stage at diagnosis of breast cancer was significantly lower in South Boston (55.5%) compared to the state (67.9%). There was no significant difference in stage for colorectal cancer (Appendix C).

Among males, esophageal and oral cancers both had significantly elevated incidence in South Boston compared to the state while mortality for all cancers combined, lung, esophageal, and liver cancers was also significantly elevated. The incidence for prostate cancer was significantly lower in South Boston, perhaps a reflection of the small black, NH population (2%) in this neighborhood. The percentage of localized/regional stage diagnoses of prostate cancer was significantly lower in South Boston (90.3%) compared to the state (96.5%). There was no significant difference in stage for colorectal cancer among males (Appendix C).

Cancer Incidence in South Boston, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	443	434.4	102.0	92.5	111.5
Brain/Other Nervous System	5	1.8	284.1	35.1	533.0
Breast, Invasive	115	116.6	98.6	80.6	116.7
Bronchus & Lung	80	62.4	128.2	100.1	156.3
Cervix Uteri	10	3.2	312.2	118.7	505.8
Colon/Rectum	27	44.5	60.7	37.8	83.5
Corpus Uteri/Uterine NOS	24	22.7	105.5	63.3	147.8
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	8	4.9	161.8	49.7	273.9
Larynx	6	1.0	580.5	116.0	1045.0
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	6	1.3	453.6	90.6	816.6
Melanoma of Skin	27	14.1	192.0	119.6	264.4
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	13	13.2	98.5	45.0	152.1
Oral Cavity/Pharynx	7	1.6	440.0	114.0	765.9
Ovary	17	9.7	174.9	91.8	258.1
Pancreas	6	4.1	147.8	29.5	266.1
Stomach	5	3.2	154.1	19.0	289.1
Thyroid	19	11.9	160.0	88.1	232.0
Urinary Bladder*	9	9.7	92.6	32.1	153.0
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	394	416.3	94.6	85.3	104.0
Brain/Other Nervous System	6	2.1	279.1	55.8	502.4
Bronchus & Lung	68	56.4	120.5	91.9	149.2
Colon/Rectum	56	42.2	132.5	97.8	167.2
Esophagus	12	5.1	234.9	102.0	367.8
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	12	7.7	156.2	67.8	244.6
Larynx	<5				
Leukemia	6	3.4	176.6	35.3	317.8
Liver/Intrahepatic Bile Ducts	11	5.2	212.8	87.0	338.5
Melanoma of Skin	17	17.9	95.2	49.9	140.5
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	16	11.1	143.8	73.3	214.2
Oral Cavity/Pharynx	25	9.2	271.4	165.0	377.7
Pancreas	7	6.3	111.8	29.0	194.7
Prostate	75	114.7	65.4	50.6	80.1
Stomach	5	2.9	173.8	21.4	326.1
Testes	<5				
Thyroid	6	2.4	254.1	50.8	457.4
Urinary Bladder*	20	28.3	70.6	39.7	101.6

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in South Boston, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	174	169.5	102.6	87.4	117.9
Brain/Other Nervous System	<5				
Breast, Invasive	23	23.2	99.2	58.6	139.7
Bronchus & Lung	59	44.4	132.7	98.9	166.6
Cervix Uteri	5	0.6	891.3	110.0	1672.5
Colon/Rectum	17	13.0	131.2	68.8	193.5
Corpus Uteri/Uterine NOS	<5				
Esophagus	<5				
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	7	4.3	162.6	42.1	283.0
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	6	0.8	718.8	143.6	1294.0
Multiple Myeloma	5	2.0	242.1	30.0	454.3
Non-Hodgkin Lymphoma	6	5.4	111.5	22.3	200.8
Oral Cavity/Pharynx	<5				
Ovary	12	7.0	170.6	74.1	267.2
Pancreas	8	7.2	111.0	34.1	188.0
Stomach	<5				
Thyroid	<5				
Urinary Bladder	5	1.5	328.3	40.5	616.1
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	185	151.3	122.3	104.7	139.9
Brain/Other Nervous System	<5				
Bronchus & Lung	75	44.0	170.3	131.8	208.9
Colon/Rectum	20	13.4	149.3	83.8	214.7
Esophagus	12	3.5	345.9	150.2	541.6
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	5	1.2	424.5	52.4	796.7
Larynx	<5				
Leukemia	8	4.3	184.4	56.6	312.2
Liver/Intrahepatic Bile Ducts	12	3.4	350.1	152.0	548.3
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	6	3.1	196.1	39.2	353.0
Oral Cavity/Pharynx	<5				
Pancreas	9	6.5	138.1	47.9	228.4
Prostate	18	14.4	124.6	67.1	182.2
Stomach	<5				
Testes	0				
Thyroid	0				
Urinary Bladder	5	2.4	208.7	25.8	391.6

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

SOUTH END

	Massachusetts	South End
<u>Race/Ethnicity:</u>		
White, NH	80%	45%
Black, NH	6%	23%
Asian, NH	5%	17%
Hispanic	8%	12%
Other/Multiracial:	1%	2%
<u>Language Spoken at Home:</u>		
English	81%	68%
Spanish	6%	15%
Portuguese	3%	<1%
French (including Haitian Creole)	2%	2%
Chinese	1%	8%
Italian	1%	<1%
Russian	<1%	<1%
Vietnamese	<1%	<1%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$41,590
Percent Living Below Poverty	9%	24%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, the South End had a population of 28,239 or 4.8% of the total Boston population.

Among females, oral and thyroid cancers had significantly elevated incidence in the South End compared to the state. While there were no cancers with increased mortality compared to the state, deaths for all sites combined was significantly lower. There were no significant differences in stage at diagnosis for breast or colorectal cancer among females (Appendix C).

For males in the South End, the incidence of all sites combined, liver, myeloma, oral, and prostate cancers was significantly higher compared to state males. There were no cancers with elevated mortality. The percentage of localized stage diagnoses of colorectal was significantly lower in the South End (26.7%) compared to the state (44.8%). There was no significant difference in stage at diagnosis of prostate cancer (Appendix C).

Cancer Incidence in the South End, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	263	255.1	103.1	90.6	115.5
Brain/Other Nervous System	<5				
Breast, Invasive	75	69.3	108.2	83.7	132.7
Bronchus & Lung	27	28.7	94.1	58.6	129.6
Cervix Uteri	<5				
Colon/Rectum	31	23.4	132.4	85.8	179.0
Corpus Uteri/Uterine NOS	16	13.1	122.1	62.3	182.0
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	11	4.8	229.2	93.7	364.6
Larynx	<5				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	9	4.9	183.3	63.5	303.1
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	6	3.9	154.8	30.9	278.7
Oral Cavity/Pharynx	6	1.0	633.3	126.5	1140.0
Ovary	5	2.7	184.7	22.8	346.7
Pancreas	5	2.7	183.9	22.7	345.1
Stomach	<5				
Thyroid	23	10.8	213.4	126.2	300.6
Urinary Bladder*	<5				
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	332	290.6	114.2	102.0	126.5
Brain/Other Nervous System	6	1.3	477.6	95.4	859.7
Bronchus & Lung	34	36.2	94.0	62.4	125.6
Colon/Rectum	28	24.0	116.5	73.3	159.6
Esophagus	5	2.5	202.6	25.0	380.2
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	9	6.2	144.1	49.9	238.2
Larynx	5	2.0	251.0	31.0	470.9
Leukemia	7	3.6	196.3	50.9	341.7
Liver/Intrahepatic Bile Ducts	16	3.2	502.2	256.1	748.3
Melanoma of Skin	15	10.4	143.5	70.9	216.2
Multiple Myeloma	7	1.3	552.5	143.2	961.9
Non-Hodgkin Lymphoma	15	8.3	180.9	89.3	272.4
Oral Cavity/Pharynx	17	4.7	361.6	189.7	533.5
Pancreas	5	1.9	260.4	32.1	488.6
Prostate	104	77.7	133.9	108.1	159.6
Stomach	7	2.6	265.1	68.7	461.5
Testes	<5				
Thyroid	5	2.5	197.4	24.4	370.5
Urinary Bladder*	17	13.0	131.2	68.8	193.6

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in the South End, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	67	89.5	74.9	56.9	92.8
Brain/Other Nervous System	<5				
Breast, Invasive	11	7.6	144.1	58.9	229.2
Bronchus & Lung	20	23.0	86.9	48.8	125.0
Cervix Uteri	0				
Colon/Rectum	12	7.1	169.5	73.6	265.5
Corpus Uteri/Uterine NOS	0				
Esophagus	0				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	0				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Ovary	<5				
Pancreas	5	3.4	148.8	18.4	279.1
Stomach	<5				
Thyroid	<5				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	81	93.7	86.5	67.7	105.3
Brain/Other Nervous System	<5				
Bronchus & Lung	20	27.0	74.0	41.6	106.4
Colon/Rectum	12	7.5	160.7	69.8	251.7
Esophagus	5	2.3	217.6	26.9	408.3
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	8	2.6	308.7	94.8	522.7
Melanoma of Skin	0				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	5	2.1	238.0	29.4	446.7
Oral Cavity/Pharynx	<5				
Pancreas	5	2.7	182.7	22.6	342.9
Prostate	10	7.7	129.8	49.3	210.2
Stomach	<5				
Testes	0				
Thyroid	0				
Urinary Bladder	<5				

Significantly elevated or lowered values are shaded.

WEST ROXBURY

	Massachusetts	West Roxbury
<u>Race/Ethnicity:</u>		
White, NH	80%	84%
Black, NH	6%	6%
Asian, NH	5%	4%
Hispanic	8%	5%
Other/Multiracial:	1%	2%
<u>Language Spoken at Home:</u>		
English	81%	79%
Spanish	6%	4%
Greek	<1%	3%
Arabic	<1%	2%
Chinese	1%	1%
Italian	1%	2%
<u>Economic Status:</u>		
Median Household Income	\$50,502	\$54,860
Percent Living Below Poverty	9%	6%

(Figures are based on 2000 US Census data)

According to the 2000 US Census, West Roxbury had a population of 28,753 or 4.9% of the total Boston population.

For females, the incidences of the following cancers: all cancers combined, brain, thyroid, and melanoma were significantly elevated in West Roxbury compared to the state. There were no cancers with significantly elevated mortality and the mortality for all sites combined was significantly lower. No significant differences in stage at diagnosis for female breast cancer or colorectal cancer were seen (Appendix C).

The incidence of melanoma and myeloma was significantly higher among males in West Roxbury compared to state males. While there were no cancers in males with significantly elevated mortality, death for all invasive cancers combined was significantly lower compared to the state. While the percentage of males diagnosed at the localized/regional stage of prostate cancer in West Roxbury (93.3%) was significantly lower compared to the state (96.5%), there was no significant difference for colorectal cancer (Appendix C).

Cancer Incidence in West Roxbury, 2003-2007

FEMALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	547	493.1	110.9	101.6	120.2
Brain/Other Nervous System	10	3.2	315.7	120.0	511.3
Breast, Invasive	153	131.7	116.2	97.8	134.6
Bronchus & Lung	82	69.4	118.1	92.5	143.6
Cervix Uteri	<5				
Colon/Rectum	66	56.5	116.7	88.5	144.8
Corpus Uteri/Uterine NOS	26	28.1	92.6	57.0	128.2
Esophagus	<5				
Hodgkin Lymphoma	5	0.8	629.0	77.7	1180.3
Kidney & Renal Pelvis	15	11.0	136.1	67.2	205.0
Larynx	0				
Leukemia	11	8.1	136.4	55.8	217.0
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	31	15.4	201.4	130.5	272.3
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	11	9.4	116.8	47.8	185.9
Oral Cavity/Pharynx	6	3.7	163.8	32.7	294.9
Ovary	16	8.2	195.2	99.5	290.8
Pancreas	8	7.7	104.1	31.9	176.2
Stomach	9	4.6	195.1	67.6	322.6
Thyroid	28	15.7	178.1	112.1	244.1
Urinary Bladder*	13	12.5	103.7	47.3	160.1
MALES	Observed	Expected	SIR	Lower CI	Upper CI
All Invasive Cancers*	491	453.9	108.2	98.6	117.7
Brain/Other Nervous System	6	3.0	200.6	40.1	361.1
Bronchus & Lung	58	65.5	88.6	65.8	111.4
Colon/Rectum	47	49.0	96.0	68.5	123.4
Esophagus	5	4.4	113.6	14.0	213.3
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	21	14.9	141.0	80.6	201.2
Larynx	5	2.0	254.4	31.4	477.5
Leukemia	14	7.4	189.3	90.2	288.5
Liver/Intrahepatic Bile Ducts	10	4.2	235.3	89.5	381.1
Melanoma of Skin	33	18.0	183.2	120.7	245.8
Multiple Myeloma	12	4.3	278.2	120.8	435.6
Non-Hodgkin Lymphoma	12	12.0	100.3	43.6	157.1
Oral Cavity/Pharynx	14	8.0	174.4	83.0	265.7
Pancreas	11	10.0	110.0	45.0	175.0
Prostate	140	123.3	113.5	94.7	132.3
Stomach	8	5.1	156.5	48.1	265.0
Testes	8	2.7	294.9	90.5	499.2
Thyroid	8	2.5	318.1	97.7	538.6
Urinary Bladder*	31	36.4	85.1	55.1	115.1

Significantly elevated or lowered values are shaded. *Includes in situ urinary bladder cases.

Cancer Mortality in West Roxbury, 2003-2007

FEMALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	137	203.0	67.5	56.2	78.8
Brain/Other Nervous System	<5				
Breast, Invasive	26	25.2	103.3	63.6	143.0
Bronchus & Lung	51	51.6	98.8	71.7	125.9
Cervix Uteri	0				
Colon/Rectum	14	17.5	80.1	38.1	122.0
Corpus Uteri/Uterine NOS	<5				
Esophagus	<5				
Hodgkin Lymphoma	<5				
Kidney & Renal Pelvis	<5				
Larynx	0				
Leukemia	<5				
Liver/Intrahepatic Bile Ducts	<5				
Melanoma of Skin	<5				
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	7	6.4	109.0	28.2	189.7
Oral Cavity/Pharynx	<5				
Ovary	8	7.1	113.2	34.8	191.7
Pancreas	<5				
Stomach	<5				
Thyroid	0				
Urinary Bladder	<5				
MALES	Observed	Expected	SMR	Lower CI	Upper CI
All Invasive Cancers	149	181.4	82.1	69.0	95.3
Brain/Other Nervous System	<5				
Bronchus & Lung	48	49.2	97.5	69.9	125.1
Colon/Rectum	14	14.1	99.2	47.2	151.2
Esophagus	7	4.0	176.5	45.7	307.2
Hodgkin Lymphoma	0				
Kidney & Renal Pelvis	<5				
Larynx	<5				
Leukemia	10	4.4	229.5	87.2	371.7
Liver/Intrahepatic Bile Ducts	8	4.9	164.0	50.4	277.7
Melanoma of Skin	6	2.1	290.3	58.0	522.6
Multiple Myeloma	<5				
Non-Hodgkin Lymphoma	<5				
Oral Cavity/Pharynx	<5				
Pancreas	12	8.6	140.0	60.8	219.2
Prostate	17	19.9	85.4	44.8	126.0
Stomach	<5				
Testes	0				
Thyroid	0				
Urinary Bladder	8	5.3	149.7	46.0	253.4

Significantly elevated or lowered values are shaded.

HOMELESS AND UNKNOWN DISTRICT

For the purpose of preventing an over inflation of cases due to residents of a homeless shelter or a nursing home within the specific neighborhood, these cases were excluded from the individual neighborhood analyses. Cases with an unknown address or post office box also were excluded.

There were 70 males with an address of a homeless shelter who were diagnosed with an invasive cancer from 2003-2007. Additionally, there were 160 males with an unknown address or post office box or a resident of a nursing home who were diagnosed in the same time period. There were 5 females with an address of a homeless shelter and 128 with an unknown address or a resident of a nursing home at the time of diagnosis. These figures represented 3.4% of the Boston incident male cases and 2.0% of the incident female cases. For cancer deaths, less than 1% of males and females fell into this category.

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APPENDIX A: INTERNATIONAL CLASSIFICATION OF DISEASES FOR ONCOLOGY (THIRD EDITION) CODES USED FOR THIS REPORT

<u>Cancer Site / Type</u>	<u>Primary Site Codes¹</u>	<u>Histologic Type Codes²</u>
Bladder, Urinary	C67.0 - C67.9	all except 9590 - 9989
Brain and Other Nervous System	C70.0 - C72.9	all except 9590 - 9989
Breast	C50.0 - C50.9	all except 9590 - 9989
Cervix Uteri	C53.0 - C53.9	all except 9590 - 9989
Colon / Rectum	C18.0 - C18.9, C19.9, C20.9, C26.0	all except 9590 - 9989
Esophagus	C15.0 - C15.9	all except 9590 - 9989
Hodgkin Lymphoma	C00.0 - C80.9	9650 - 9667
Kidney and Renal Pelvis ³	C64.9, C65.9	all except 9590 - 9989
Larynx	C32.0 - C32.9	all except 9590 - 9989
Leukemia	C00.0 - C80.9 C42.0, C42.1, C42.4	9733, 9742, 9800 - 9820, 9826, 9831 - 9948, 9963, 9964 9823, 9827
Liver and Intrahepatic Bile Ducts	C22.0, C22.1	all except 9590 - 9989
Lung and Bronchus	C34.0 - C34.9	all except 9590 - 9989
Melanoma of Skin	C44.0 - C44.9	8720 - 8790
Multiple Myeloma	C00.0 - C80.9	9731, 9732, 9734
Non-Hodgkin Lymphoma	C00.0 - C80.9 all except C42.0, C42.1, C42.4	9590 - 9595, 9670 - 9729 9823, 9827
Oral Cavity and Pharynx	C00.0 - C14.8	all except 9590 - 9989
Ovary	C56.9	all except 9590 - 9989
Pancreas	C25.0 - C25.9	all except 9590 - 9989
Prostate	C61.9	all except 9590 - 9989
Stomach	C16.0 - C16.9	all except 9590 - 9989
Testis	C62.0 - C62.9	all except 9590 - 9989
Thyroid	C73.9	all except 9590 - 9989
Uteri, Corpus and Uterus, NOS	C54.0 - C54.9, C55.9	all except 9590 - 9989
All Sites / Types	C00.0 - C80.9	8000 - 9989

¹includes codes added to the *International Classification of Diseases for Oncology, Third Edition* since its publication.

²Only invasive cancers (those with invasive behaviors) are included in this publication except Bladder, Urinary, which includes invasive and *in situ* behaviors.. Non-invasive (*in situ*) cancers are not included.

³Massachusetts hospital coding conventions may have assigned some cases to a "not otherwise specified" site category that is not included in this cancer type.

APPENDIX B: INTERNATIONAL CLASSIFICATION OF DISEASES, TENTH REVISION*
ICD-10 CODES USED FOR THIS REPORT

<u>Cause of Cancer Death</u>	<u>ICD-10 Codes</u>
Bladder, Urinary	C67.0-C67.9
Brain and Other Nervous System	C70.0-C72.9
Breast	C50.0-C50.9
Cervix Uteri	C53.0-C53.9
Colon / Rectum	C18.0-C20.0
Esophagus	C15.0-C15.9
Hodgkin Lymphoma	C81.0-C81.9
Kidney and Renal Pelvis	C64.0-C65.0
Larynx	C32.0-C32.9
Leukemia	C91.0-C95.9
Liver and Intrahepatic Bile Ducts	C22.0-C22.9
Lung and Bronchus	C34.0-C34.9
Melanoma of Skin	C43.0-C43.9
Multiple Myeloma	C90.0-C90.2
Non-Hodgkin Lymphoma	C82.0-C85.9
Oral Cavity and Pharynx	C00.0-C14.9
Ovary	C56.0
Pancreas	C25.0-C25.9
Prostate	C61.0
Stomach	C16.0-C16.9
Testis	C62.0-C62.9
Thyroid	C73.0
Uteri, Corpus and Uterus, NOS	C54.0-C55.0
All Sites / Types	C00.0-C97.0

APPENDIX C:

Stage at Diagnosis by Boston Neighborhood, 2003-2007						
Neighborhood	Breast Cancer-Females			Colorectal Cancer-Females		
	Local	Regional	Distant	Local	Regional	Distant
Allston/Brighton	69.9%	24.7%	5.5%	40.0%	45.5%	14.5%
Back Bay/Beacon Hill	74.2%	24.2%	1.6%	40.9%	45.5%	13.6%
Charlestown	71.9%	24.6%	3.5%	52.0%	32.0%	16.0%
Dorchester	65.0%	30.0%	5.0%	44.2%	36.3%	19.5%
East Boston	59.8%	34.0%	6.2%	43.2%	37.8%	18.9%
Fenway/Kenmore	71.1%	28.9%	0.0%	50.0%	37.5%	12.5%
Hyde Park	68.0%	25.9%	6.1%	32.2%	37.3%	30.5%
Jamaica Plain	65.7%	29.6%	4.6%	55.6%	27.8%	16.7%
Mattapan	58.2%	36.4%	5.5%	52.6%	28.9%	18.4%
North/West End	70.4%	26.4%	3.2%	54.8%	33.3%	11.9%
Roslindale	67.5%	28.1%	4.4%	35.1%	45.6%	19.3%
Roxbury	54.5%	37.0%	8.5%	51.0%	28.6%	20.4%
South Boston	55.5%	40.9%	3.6%	33.3%	33.3%	33.3%
South End	65.3%	30.7%	4.0%	48.3%	41.4%	10.3%
West Roxbury	76.0%	18.5%	5.5%	38.5%	36.9%	24.6%
Massachusetts	67.9%	27.5%	4.6%	42.5%	39.7%	17.8%
Neighborhood	Prostate Cancer		Colorectal Cancer-Males			
	Local/Regional	Distant	Local	Regional	Distant	
Allston/Brighton	95.2%	4.8%	48.4%	35.5%	16.1%	
Back Bay/Beacon Hill	92.2%	7.8%	52.9%	29.4%	17.6%	
Charlestown	90.9%	9.1%	21.4%	42.9%	35.7%	
Dorchester	96.2%	3.8%	55.4%	34.9%	9.6%	
East Boston	91.9%	8.1%	48.3%	41.4%	10.3%	
Fenway/Kenmore	90.4%	9.6%	50.0%	37.5%	12.5%	
Hyde Park	95.0%	5.0%	41.7%	50.0%	8.3%	
Jamaica Plain	96.9%	3.1%	38.6%	34.1%	27.3%	
Mattapan	96.3%	3.7%	34.3%	34.3%	31.4%	
North/West End	95.3%	4.7%	50.9%	32.7%	16.4%	
Roslindale	95.05	5.0%	40.5%	45.9%	13.5%	
Roxbury	91.1%	8.9%	41.9%	40.5%	17.6%	
South Boston	90.3%	9.7%	52.0%	30.0%	18.0%	
South End	97.1%	2.9%	26.7%	40.0%	33.3%	
West Roxbury	93.3%	6.7%	55.3%	21.3%	23.4%	
Massachusetts	96.5%	3.5%	44.8%	38.1%	17.1%	

-Shaded areas indicate significantly elevated or lower percentages.